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# NORTH CAROLINA MEDICAL JOURNAL.

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THOMAS F. WOOD, M.D., CEO. CILLETT THOMAS, M.D.,

Number 1.

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## ORIGINAL COMMUNICATIONS.

A CASE OF PELVIC CONTRACTION—MOTHER AND CHILD BOTH SAVED BY A TIMELY RESORT TO LAPARO-HYSTEROTOMY.

By Cornelius Kollock, M.D., Cheraw, S. C.

On the 20th of March, 1892, I was called to Mrs. A. C. L., aged 28 years; general health had always been apparently good. The patient, however, had a severe pelvic contraction, which must have been consequent upon some disordered condition of the bony structure of the pelvis. This was the third time this woman had been pregnant. Her first labor was on the 7th day of September, 1885, the second on the 12th of July, 1887, and the third on the 20th of March, 1892. In the first and second labors, the attending physicians finding the pelvic contractions so great that they could not effect a delivery of the fetus after craniotomy, they were compelled

to resort to embryotomy. In both the first and second accouchements, the parts were greatly mangled and lacerated. After the second labor the patient came near losing her life. In a thorough examination by the touch, and with the pelvimeter, I found the true conjugate diameter to measure a fraction less than one inch a and a quarter. I declined to attempt embryotomy, for I felt assured that in the small space in which the work must be done, the soft parts, perhaps including the bladder and intestines, must be so mangled and lacerated as to endanger the life of the patient as much, if not more, than the operation of hysterotomy. The attending physicians thought the contraction in this, the third accouchement, was greater than in the first or second. When hysterotomy was proposed, the patient and her husband readily consented. The woman was in a good condition to undergo a severe operation. She had been in labor a little less than six hours, and the contractions of the uterus had not been very strong, and there had been no manipulations of the parts The bowels had been emptied twice in the last twenty-four hours, and the water was drawn with a catheter. Every aseptic and antiseptic measure was fully carried out, about the patient's person, about her bed, and also about the persons who assisted in the operation. The vagina was washed out with a disinfectant fluid, and the abdomen thoroughly cleansed with hot water and soap, and then freely bathed with a solution of bichloride of mercury, 1 to 2,000. Sanger's method, known as the new and improved Casarean section, was the one decided upon in this case. An incision of eight inches was made in the median line below the umbilicus. This brought the uterus into view. To protect the abdominal cavity, the cervix was surrounded with a thin sheet of India rubber moistened with a 5 per ceut, solution of carbolic acid. The cervix was also constricted with Esmarch's elastic tube. To open the cavity of the uterus, a vertical incision of six inches was made in its anterior wall about its middle third, in order to avoid the fundus and cervix. The membrane was now ruptured, and the child was brought out by the feet, the head being low down in the cavity. It is somewhat remarkable that the child was not asphyxiated, and that it cried vigorously as soon as atmospheric air reached it; when the uterus was contracted the tube was removed and the ruptured arteries were secured. The incision in the uterus was now closed by twenty interrupted sutures, twelve

deep and eight superficial. The sutures were introduced so as to include the peritoneal and muscular coats, avoiding the mucous. The sutures were applied in the manner of Lembert's intestinal sutures, so as to welt in the peritoneum, thus securing a speedy union by maintaining the serous surfaces in contact. These sutures in the uterus were all of carbolized silk. The cat-gut is not to be depended upon, for when they become moistened they stretch, and sometimes the knots become untied. The whole abdominal cavity was now thoroughly washed out with hot sterilized water. No drainage was used, as there could be no leakage after the thorough closure of the incision of the uterine walls. The external incision in the abdominal walls was closed by silver wire.

Feeling it to be a duty to this brave woman to save her from suffering and the risk of her own life, that must attend upon another pregnancy, and knowing that the removal of the ovaries would not lessen her chance of recovery, I did Batty's operation. The ovaries were in a perfectly healthy condition, and would probably sooner or later cause another conception. I do not remember an operation of as much magnitude as this that did as well. The temperature was never above 99, and the pulse never above 90.

Since the recent advances in gynecology and in abdominal surgery, the question arises, Are we justified in ending a difficult and protracted labor by resorting to embryotomy or craniotomy? These operations always cause the death of the child, and sometimes they prove fatal to the mother. The moral question is often tided over by physicians, when they say they did not resort to craniotomy till they were satisfied the child was dead; but this is rather dodging the question. They, as it were, let the fetus die, when there was a possibility of saving it, in order that they may be able to say they did not kill it. Both embryotomy and cramotomy are often fatal to the mother, for the contusions and lacerations of the vagina and adjacent tissues, particularly when the contraction is very great, are often frightful. This we must admit is, in a measure, due to the condition of the patient when the operation is performed. As a general rule the operation is done as a last resort, after a long and painful labor, when the patient's strength is exhausted, and the parts more or less contused by repeated efforts to turn the fetus or deliver with forceps. It must

also be borne in mind that exhaustion of the system favors attacks of peritonitis and crural phlebitis; sepsis has also much to do with these sequelæ. Then let every physician bear in mind the momentous fact that in every case of labor there are two lives at stake. and that it is his duty to save both if possible. When there is reason to suspect the presence of a pelvic obstruction there should be a careful and thorough exploration of the pelvic region, ascertaining by the touch and pelvimeter the nature and extent of the obstruction, not by experimental trials with forceps and attempts at turning. Finding the pelvic contraction to be so great that the delivery of a living child is utterly impossible, what is the duty of the attending physician? to wait till the fetus dies, and after the woman's strength is exhausted to mutilate her by doing embryotomy or craniotomy, thus endangering her life? We cannot conscientionsly accept this position. In some cases the pelvic obstruction is so great that craniotomy cannot be done with safety to the mother.

In the case reported in this paper the conjugate diameter was less than an inch and a quarter, and the uterus was high up in the cavity. To have attempted embryotomy or craniotomy in this case, would have been a criminal act; from the knowledge of the first and second labors either of these operations must surely cause the death of the fetus, and in all probability that of the mother. Only six hours having elapsed since the labor commenced, the woman's strength was not exhausted, and having been spared the long continued action of the uterine muscles, which, as in contusion of the parts, tends to excite peritonitis, and prevents union by first intention, she was in a proper condition to stand laparo-hysterotomy.

Results recently obtained by the improved Casarcan section are very encouraging. Out of 149 operations on the continent of Europe 108 women and 136 children have been saved. In Germany the results are better than in any other country, for there the greatest degree of care has been exercised and a most rigid adherence to the technique of the operation. Out of 80 operations in Germany there were 12 deaths. Leopold, of Dresden, in 17 operations had 3 deaths. In 18 operations in Austria 12 women and 15 children were saved. In 29 operations by Zweifel there was one death. Schauta has done the Casarcan operation 15 times without a single death.

In America the results of the operations have not been equal to those of our brethren across the water. Why any difference in the operation we are unable to say, for the American surgeons have, in pelvie and abdominal surgery, compared favorably with those of any country. It cannot be that they were ever less eareful or less rigid in their adherence to the technique of the operation. However, in the past three or four years, there has been in the United States a great change for the better in the results of this operation. In the hospitals of our cities the fatality is much less than it was a few years ago. Recently of 18 operations done in Louisiana 14 were saved. In 8 operations in Ohio 6 were successful. In December, 1891, Dr. Charles Jewett, at the Long Island College Hospital, did Sanger's improved Casarean operation twice successfully, saving both mothers and both children. Dr. Joseph Price, of Philadelphia, one of the most skilful and successful surgeons in our country, has done the Cæsarean operation successfully a number of times. Dr. Price's operations were mostly done according to Porro's method. There are some who prefer this method. while others adopt the one known as Sanger's improved Casarean section. In estimating the comparative advantages of the operation, it is difficult to say to which the preference should be accorded.

According to the statistics mentioned the mortality in laparo hysterotomy is certainly not greater, if as great, as that of craniotomy and embryotomy. In the latter operations there is a positive certainty of one death-perhaps two. In the Casarean operation, if done in time and in a proper manner, the hope of saving the child is as great as it is in a natural labor, even greater than when the head of the fetus has been impacted in the pelvic strait for a long time, and then delivered with forceps. It is my honest conviction that if all cases of pelvic contraction could be attended to in time, before the patient's strength is exhausted, and the soft parts so mangled and contused as to set up inflammatory action, and the operation properly performed, 80 or 90 per cent. could be saved. The fetus, which is in no way responsible for the position it occupies, has surely some rights which it is incumbent upon us to consider; and it demands of us some effort for its protection. Then let cranictomy be relegated to the past, and its place be taken by a method more humane and more in accord with science. If the advance in gynecology and surgery continues for another

decade, as it has for the past twenty years, we may hope the happy period is near at hand when craniotomy, or embryotomy, will be performed as rarely as the Cæsarean section was forty years ago.

In 149 operations 108 women and 136 children were saved; a preservation of 244 lives. If eramotomy had been done in these cases 149 children would have been destroyed, and in all probability 20 or 25 women. In estimating the results of the Cæsarean section in contracted pelvis no one can resist the conviction of the operation being not only justifiable, but imperatively demanded.

As it is our business to save life, and in every obstetric case there being two, sometimes three lives at stake, how can we reconcile it to our conscience to stand by for hours, perhaps days, waiting for the death of an innocent, helpless fetus, and then subject the mother, in an exhausted condition, with a tendency to peritonitis and crural phlebitis, to a savage operation, seriously imperiling her own life.

Let the "slaughter of innocents" cease!

NATIONAL SANITARIUM FOR THE TREATMENT OF PULMONARY PHTHISIS.—Hon. Jacob H. Gallinger, of New Hampshire, has sent us his speech in the Senate on the above subject. This speech shows what people are thinking about, and that sanitaria are going to be tried for the isolation and treatment of consumptives. We trust that his speech will not induce the general government to go into this business; if it does, then let it go a little further and establish a "erumpet and muffin baking and punctual delivery society" for the relief of indigent dyspeptics. If the government chooses to try the experiment of separating and treating consumptives, let it establish a sanitarium for those of the Army and Navy who are victims, and not undertake any more paternal nurseries for the sick and for political doctors.

HYPERTROPHY OF THE THIRD OR PHARYNGEAL TONSIL—ADENOID VEGETATIONS IN THE NASO-PHARYNX, IN CHILDREN.

By K. P. Battle, M.D., Surgeon for Diseases of the Eye, Ear, Throat and Nose to St. John's Hospital, Raleigh, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

It is not my purpose to attempt an exhaustive essay on this subject, but to give a résume of the more important points of what seems to me to be our knowledge of it at the present time, and with special reference to its practical aspects. I desire, without claiming any originality, to call attention to an affection which is to a great extent neglected among us, and which, though not so common as in more northern climates and in the unhygienic conditions found in the larger cities, is still not so rare as has been supposed. It is present and doing harm in many cases when we may not suspect it, and is usually recognized only when in so aggravated a form that it cannot be overlooked.

Anatomical and histological descriptions of the normal tissue had been given before, but Luschka's writings in 1862 and later attracted so much attention that it is frequently called Luschka's tonsil. Meyer, of Copenhagen, in 1868 published an elaborate paper on "Adenoid Vegetations in the Naso-Pharyngeal Cavity." This was the first important contribution from a clinical point of view, and has become a classic. He was followed in due time by a constantly increasing number of writers in the same field, abroad and in the United States. We are indebted to Löwenburg, Guye, Fränkel, Tornwaldt, Woakes, Roe, Bosworth, Hooper, Cohen, Gottstein, Delavan, and a host of others too numerous to mention. I think it not necessary to be more exact in giving the credit due to different authors for the statements I make in a paper of this kind.

There is a lymphatic ring of tissue, situated in the mucous membrane and under it, between the mouth and nose above and the cesophagus and trachea below, the essential elements of which are closed lymph follicles, numerous separate lymph corpuscles outside

of these, and lymphatic vessels, all embedded in more or less connective tissue and richly supplied with blood-vessels. These follicles have the same structure as the solitary glandules of the small intestines, having a thin capsule and very delicate trabeculæ of connective tissue fibers running through the interior, forming interspaces partly filled with lymph corpuscles. This is known as lymphoid tissue, and is characteristic of lymphatic glandular tissue all over the body. In the mucous membrane in the region referred to are also found acinous glands provided with secreting cells and ducts for supplying mucus to the surface. These two kinds of tissue are, in the parts spoken of, more or less intermingled but not equally distributed. They are grouped in different places, and form, between the pillars of the fauces, the distinct masses well-known as the faucial tonsils; on the vault, sides (as far forward as the openings of the Eustachian tubes) and posterior wall of the upper pharynx, they form the more flattened and diffuse collection known as the pharyngeal tonsil; and on the surface of the base of the tongue a similar arrangement is found called the lingual tonsil. In other parts these structures are more scattered and comparatively few and have been called the discrete tousil.

I may say here, in passing, that there is some of this lymphoid tissue in the larynx, and especially just below the glottis, and that Bosworth has recently made the interesting suggestion that probably catarrhal croup may be explained by the enlargement of that tissue. He has treated this form of croup with very large doses of the syrup of the iodide of iron (five-drop doses every hour in a child of six months, and fifteen drops every hour in one of four and a half years, for four or five hours), and thinks the drug was the cause of the cure which followed. But to resume: These tonsils are all of the same nature and function and are subject to the same diseases, though not to the same degree. For instance, acute inflammation of the faucial tonsils is common, of the pharyngeal it is rare. In hypertrophy it is the lymphoid tissue which is particularly at fault. It is essentially a lymphatic hyperplasia, and this tissue then predominates to such an extent that the name "adenoid," as indicating true glandular tissue, has been denied to it by some, the terms "lymphatism" and "lymphatic hypertrophy" being preferred.

What is the function of these structures? It is not yet definitely

settled, but probably three actions may be assigned to them: (1) The formation of blood, owing to their production of leucocytes in common with other lymphatic glands. (2) The protection of the body, to a certain, though limited extent, from dangerous invading micro-organisms in food and air by the destructive action upon them of great numbers of wandering phagocytes which they are known to contain, according to the theory of Metschnikoff and Killian. (3) The furnishing of a lubricating secretion to aid in deglutition by the nuciparous glands which form a part of their structure.

But we are now concerned especially with the pharyngeal or third tonsil. This mixture of glandular and lymphoid tissue is thickest over the vault and posterior wall, a quarter of an inch or less in depth, and is here so arranged that the surface is thrown into irregular folds and furrows, mainly longitudinal It becomes thinner and disappears as a distinct mass of tissue as we come down into the lower pharynx below the level of the palate. In the lower part of this tonsil, in the middle line, is found, in some cases, an opening about the size of a pin's head leading upward into a small sac in the mucous membane, which may be as large as three-quarters of an inch long and a quarter wide. This is the so called pharyngeal bursa of Luschka and Tornwaldt. Though not always present, it was regarded by them and their followers as a normal condition, while others looked upon it as not a true bursa, but a cavity occasionally formed by the adhesion of the folds bordering on a deep median fissure in that region. It is sometimes the seat of disease, and then this may be the principal pathological change in a nasopharyngeal catarrh. I have seen a very pretty case of distention of the little cavity with pus. But the discussion of this affection is outside of our subject, for in a case of adenoid vegetations the presence or absence of a so-called bursa, whether diseased or not, may be ignored as insignificant.

This description of the third tonsil applies to children. At about the age of puberty the lymphatic part of it generally begins to atrophy, in common with similar tissue elsewhere in the throat, and in the adult, in the normal condition, the soft parts are usually seen to be thinner and smoother than before. The tonsil is frequently hypertrophied in children, and this is the affection which we have now to consider.

Causes—It is essentially a disease of childhood. Bosworth regards the thickened condition found in the vault of the pharynx of adults in the ordinary post-nasal catarrh to be, in many instances, of the same nature, but I do not propose to pursue the subject in that direction. It frequently begins in infancy and in many cases seems to be hereditary. It is very commonly found in these children of a lymphatic temperament who are disposed to glandular enlargements elsewhere, whether scrofulous or not. It is often seen in truly scrofulous children, but is by no means confined to them. It may be found in children who are otherwise apparently in perfect health—among the rich as well as the poor. A tendency to hypertrophy may be the result of repeated cold, even in healthy children, but especially in those who lack vigor of constitution from any cause.

Pathology.—This, as has been stated, is essentially a hyperplasia of the lymphoid tissue uormally present, but the connective tissue is also increased in varying degrees. The first, as a rule, predominates, and then the growths are rather soft and pulpy. When the connective tissue is in greater proportion they become denser and tougher, but this is less common. The muciparous glands also are increased in size and their excessive secretion is added to by the deepened fissures between the hypertrophied folds and ridges taking on for the time the function of mucus-forming glands.

The shape of the growths is usually more than an exaggeration of the furrowed condition normally found in children. The folds are greatly enlarged, and there are frequently many finger-like projections from the surface, making it lobulated and extremely irregular. In the denser varieties the swelling is apt to be less uneven. Their size varies. They are sometimes so small as to give rise to no symptoms, and again are so large as to fill the upper pharynx more or less completely. They do not, however, grow indefinitely, as do polypi, resembling in this respect the changes seen in hypertrophy of the faucial tonsils. As in the case of the normal tissue, the hypertrophy has a tendency to stop and the tumor to shrink at puberty, though the effect of this is no doubt increased by the natural enlargement of the bony parts, as the body becomes more developed at that period.

Symptoms.—When the case is an aggravated one, these are characteristic and well marked. Nasal respiration, though rarely

impossible for short periods, is difficult and tiresome, and mouth-breathing is more or less constant day and night, labored breathing in sleep and snoring being often distressing to the parents as well as the child. The passage of air through the nose being interfered with, the sense of smell is impaired. For the same cause—want of proper respiration—there is a lack of the normal muscular activity and vigorous life, and a deficient oxygenation of the blood, and the general health suffers. The child is more liable to disease of the throat and lungs. Sometimes there is an improper development of the chest and a pigeon-breasted condition independently of any rickety constitution.

The voice has a muffled or dead character, somewhat like that of a bad case of acute rhinitis.

Profuse secretion is common, and it may be forced forward instead of passing downward, so that in young children there may be the appearance of a chronic bad cold when the trouble is really in the vault of the pharynx. This mistake is frequently made and I insist upon it strongly. The secretion is in other cases, however, not a marked feature.

The physiognomy in the severe cases is characteristic. There is a broadening and flattening of the parts about the bridge of the nose and an open mouth, giving a vacant and stupid expression.

There is always more or less deafness, sometimes extreme, and suppuration of the middle ear may be a complication.

In lesser degrees of the affection the symptoms vary in like proportion, and there are cases in which, though there is some degree of hypertrophy, they are so slight that they may be disregarded; but they should be watched. It is particularly important to note the effect of these hypertrophies on the ear. Speaking now of all degrees of severity of the disease, the following statements may be made:

- 1. The great majority of them have ear complications.
- 2. The great majority of ear troubles in children, certainly of the more or less chronic ones, have their cause in vegetations at the vault of the pharynx.
- 3. Very many cases of deafness in adults are the result of pharyngeal adenoids in early life.
- 4. Impairment of hearing may be the only symptom of their presence.

The last was lately pointed out by Woods, of Baltimore, and was confirmed in a recent case in our practice in which the removal of the growths seemed to materially aid the aural treatment in a complete cure. In all cases of deafness in children they should be looked for.

The explanation of the involvement of the ears varies according to the size of the adenoids present. Whatever cause acts so as to prevent the proper opening of the Eustachial orifice for the frequent admission of air to the middle ear will result in the rarefaction of the air in that chamber by absorption, consequent depression and undue stretching of the membrana tympani and other changes, seriously impairing the function of the ear. This may be brought about by direct pressure of the growths on the mouths of the tubes, or by their presence in less degree, but still sufficient to cause interference with the muscular movements concerned in opening them. Again, the obstruction to the free passage of air through the upper pharynx may cause, as suggested by Bosworth. stagnation and a tendency to rarefaction of the air in the neighborhood of the orifices, and consequent hyperæmia and swelling of their lips and the walls of the tubes. Perhaps in some cases there is a direct extension of catarrhal inflammation from the pharvnx down the tubes to the ears. Certainly acute inflammation and suppuration of the tympanum sometimes supervenes.

The symptoms vary in severity at different times, being often increased during damp weather, and always when the child takes cold. We should examine the upper pharynx in children who have frequent symptoms of rhinitis If the vegetations are found, the cause of the tendency to colds will often be found at the same time.

Hypertrophy of the faucial tonsils will often be seen in connection with that of the pharyngeal, but not always. We may have either without the other.

Diagnosis.—This can be definitely made by the use of the rhinoscopic mirror, or by the forefinger. The mirror can seldom be used in young children, and in such it is not difficult to pass the finger up behind the palate and feel for the growths. They would be felt by its tip and back, and the sensation is commonly much as if the vault were occupied by a mass of earthworms. If they are prominent a mistake could hardly be made. If less so, a few trials

soon give the educated touch which will distinguish the unnatural softness and yielding character of the membrane. Of course we have to guard against doing injury to the soft palate. The nail should be short and blunt, unless the plan of using it as a natural operating instrument is adopted. The finger is often streaked with blood when withdrawn, but that is of no consequence, for a little bleeding on the slightest provocation is one of the characteristics of these growths.

Treatment.—The only treatment of any value is removal by surgical means. I do not mean to say that an operation should be done in all cases whenever any degree of hypertrophy is shown to be present. Personally I am always conservative on questions of operating, and am inclined to avoid it when the same end can be attained by other means. Nor is it forgotten that, as has been stated, the vegetations, as a rule, have a tendency to diminish at a certain age, but I wish to emphasize the point that whenever there is reason to believe that they are doing damage, we should not hesitate to operate. While we are waiting for the child to outgrow them irreparable damage may be done. A pale, inert and flabbymuscled child may, as the result of an operation, develop into a ruddy, strong and vigorous romp. A growing child needs the full and free use of his lungs and natural air-passages, and if he does not have it, it ought to be given to him. The operation can usually be done with such comparative ease, satisfaction and safety, that there is no excuse for neglecting it. In the worst cases there will be no difficulty in deciding, but it is also needed whenever there is any obstruction at all to easy breathing through the nose by day or night, when there is a chronic excessive secretion and troublesome hawking, when the voice is affected, and, above all, when there is impairment of hearing. When the last is caused by vegetations their removal and the systematic inflation of the ear by Politzer's bag may prevent a deafness which, if neglected, might last through life.

As intimated above, the finger-nail has been used successfully for taking away these growths, but it is not, I think, to be recommended. The different kinds and modifications of instruments that have been devised are perhaps as numerous as those who have written on the subject—some for use through the nose, some through the mouth. Ring knives, snares, forceps, opening laterally

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and antero-posteriorly for crushing and for cutting, and curettes, and many varieties of all of them. Forceps have been most generally used, and I show a sample of one of the best, which is Hooper's modification of Löwenburg's. But by far the best instrument for ordinary use is the improved Gottstein's curette, which I have here, lately brought prominently before the profession by Dr. Frank E. Miller, of New York. The shaft curves slightly downward toward the end and terminates upward in a widely fenestrated, somewhat triangular curette of peculiar shape. This is set on at about a right angle and has a nearly straight cutting edge at the upper side, the edge being directed downward, and with a backward inclination, toward the middle of the triangle. It is introduced sideways and then turned upward along the posterior surface of the palate and the handle depressed so that the blade may be pushed upward and forward as far as possible, that is, to the junction of the septum with the vault. Pressure backward and downward is now quickly made and the growth is pressed into the opening of the curette and cut off. There is usually little bleeding and it always soon stops.

The mouth-gag will be needed in some cases, but this may often be dispensed with and the tongue depressor used alone. The instrument is sometimes a little difficult to introduce, but once behind the palate, the rest is easy. There is no trouble at all about removing it. It cuts more easily through the softer kinds of hypertrophy, but is successful in all. It is important to have an assistant hold the patient's hands at times, but if this is done and the head is measurably controlled, it is impossible to do damage with it. The uvula, soft palate, mouths of the Eustachian tubes and septum simply cannot be injured—and this cannot be said of any form of forceps. Moreover, the blade does not project beyond the blunt sides on which it is supported, so that it is impossible to cut off too much tissue and do violence to the deeper structures of the parts from which the adenoids are cut.

Some operators recommend that an anesthetic be given and that an attempt be made to eradicate all the hypertrophied tissue wherever found. I believe, with others, that an anesthetic is not necessary, certainly with Gottstein's curette, and that with that instrument all the tissue can be removed that need be. It is impracticable to remove all such tissue from all parts of the naso-pharynx

with any means, and if it were otherwise it would not be necessary. Enough may be accomplished at times by one introduction of this curette at one sitting; if not, it may be repeated, at the same operation or afterwards. We may be governed by the evidence of the mirror or finger, or by the effect produced on the symptoms. The after-treatment may be rothing at all or a simple alkaline antiseptic spray may be prescribed.

In conclusion, the advantages of this curette may be summed up as follows:

- 1. The comparative ease with which it can be used.
- 2. The impossibility of doing any injury with it.
- 3. The quickness of its action and the shortness of the operation, combined with sufficient thoroughness.
  - 4. No anæsthetic is required.

Dr. Caleb Winslow.—There will appear in the next number of the Journal a biographical sketch of Dr. Caleb Winslow, with a portrait. Dr. Winslow is the last living representative of the First Board of Medical Examiners in North Carolina, which convened in Raleigh on the 6th May, 1859. It is a great pleasure to put on record the quiet deeds of these pioneers of our profession, who, with wise forethought, built the foundation upon which we are now working so prosperously as a united profession. Dr. Winslow was one of the most successful surgeons our State has produced, and we take pleasure in setting this forth in the permanent form of a biographical sketch, which will be accompanied with a striking photogravure by Gutekunst. Dr Winslow has retired from the practice of medicine, and is now living in Baltmore, where he has resided ever since the war.

### RECTAL PATHOLOGY.

By W. J. Jones, M.D., Goldsboro, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

In the Section of Surgery I have been given space for some reflections, with clinical data, embraced in the province of

#### RECTAL PATHOLOGY.

The recognition of the dictum of Solomon, "that there is nothing new under the sun," and realizing that the vanguard of scientific research have penetrated and exploited nature's arcana to evolve germinal ideas which, when elaborated and materialized, have ever given new impulse and vigorous growth to scientific medicine, I am acutely conscious of my inability to do more than simply to invite your attention to, and emphasize the importance of, more thorough cultivation of this field of medical inquiry, which, I regret to say, has been lying comparatively fallow—when we consider its importance as a physiological factor in the complex problem of digestion and the amount of suffering when diseased. The rectum is perhaps more frequently diseased than any other portion of the alimentary canal or its correlated digestive viscera

From the great number of affections to which this organ is subject I have selected one for your consideration with which you are clinically very familiar, but perhaps deem as quite insignificant. It is a disease prevalent among the barbaric as well as civilized peoples, and no condition of humanity, land or clime can claim immunity. It finds its victims among the devotees of science, literature and art, as among the army of hard toiling bread-winners—the latter not infrequently reduced to absolute penury—becoming pensioners upon Christian charity because of this infirmity. Yes, the sceptered monarch and humble peasant share alike the inevitable tortures of this disease—Hemorrhoids.

In professional endeavor to alleviate the sufferings of those afflicted with this very common malady by palliative and surgical

resources, I have been most favorably impressed with its amenability to operative interference, and hence the presentation of this paper to the Society.

Upon the most reliable statistical authority in this department of medicine, Dr. William Allingham, England, it has been discovered that of four thousand consecutive cases of rectal disease admitted into St. Mark's Hospital one-fifth were hemorrhoids.

Before investigating the pathological condition constituting piles and giving the different procedures in vogue for relief, I trust it will not be considered the work of supererogation if, for the sake of a clearer comprehension of the subject, I should give a brief r(sumé of some anatomical factors that are chiefly implicated in the production of these *Tumors*.

In the first place, we must regard this abnormal condition as attributable to undue tension in the vascular supply of the rectum and contiguous tissues. When dilatation of the arteries, veins or eapillaries takes place from immediate or remote obstruction with the subsequent connective tissue development, we have lesion of the rectum known as hemorrhoids. Since the blood-vessels contribute so much to these pathological growths it becomes necessary to investigate the source of vascular supply and to note the fact that the anal division of the rectum has connection with the general venous system, while the first and second portions have direct communication with the portal system. It is true that we have a free anastomoses of arteries and veins in the anal region, and but for the sphincter muscles in this contractile function guarding the outlet, we could not trace the derangement of circulation to either system. Let it be remembered that the inosculations of the two systems are well marked at the classical white line of Hilton, the point of union of the rectal mucosa with the integument and also the small interspace that intervenes between the internal and external sphincter muscles. Upon the sphincteric contraction we are greatly dependent to distinguish in diagnoses the internal from an external hemorrhoidal nodule.

The legitimate deduction to be drawn from the anatomical facts set forth in the distribution of blood to the rectum would incline us to look to the portal system as a prolific remote etiological factor in the production of internal hemorrhoids. In this variety of hemorrhoids we must also look to the state of all the pelvic organs

which, by disease or mal-position, may be the cause of the obstruction of vessels and the varicose condition that must inevitably follow because of the valueless vessels and the abundance of loose areolar tissue in which they are embedded.

After the division of piles into internal and external, we find it necessary to extend the classification into a subdivision of each variety, as the construction of each nodule depends upon the preponderance of either blood-vessels or adventitious connective tissue. When the tumor consists chiefly of expanded capillaries, it is known as the capillary variety. When a venous pouch, miniature aneurism or phlebectasis occurs with hyperplasia of connective tissue element, we recognize a venous tumor.

Dr. Allingham stands sponsor for additional forms called the arterial, in which the arteries predominate. Each of these varieties possess well-marked features of distinction, so that little experience in rectal exploration is needed to differentiate them.

Assuming that physicians and surgeons are quite familiar with the causition and symptomatology of such a common affection as the piles and the value of time for this Society in the reading of other papers perhaps more important and interesting than this, I will omit the causes and symptoms that are so readily recognized, and proceed to notice as succinctly as possible the different methods of treatment.

Dr. Allingham enumerates eleven distinct operations for the relief of hemorrhoids, the merits and demerits of each I do not purpose to discuss in this hastily prepared and immatured paper.

The following methods of treatment have been formulated by Dr. Allingham:

- 1. Excission with knife or scissors.
- 2. Ecrasures of Chassaignac or the wire of Maisonneuve.
- 3. Application of various acids and caustic pastes.
- 4. Injection of carbolic acid or other astringent fluids into the body of pile.
  - 5. Cauterization "Ponctuëe" of Demarquay.
  - 6. Cauterization linear of Waillemeis.
  - 7. Removal by galvanic cantery wire.
- 8. Removal by clamp and scissors—applying actual cautery to arrest hemorrhage.
  - 9. Dilatation of the sphincter muscles.

10. Removal by the screw crusher.

11. Ligature.

For a comprehensive description of the above operative procedures I would refer to the author, who has duly considered the pros and cons of each with regard to technique and practical results in treatment.

It would be presumption in one with limited clinical and operative experience to inveigh, even deferentially, against any method laid down by the master of surgery, whose clientele in metropolitan cities give ample opportunity for experimental knowledge in the various surgical procedures for the radical cure of hemorrhoids without any expectation to contribute additional information in their field of labor, I most respectfully submit a few reflections and deductions drawn from clinical data in the treatment of the disease under discussion. The consensus of opinion of both foreign and native surgeons in the election of operation for the relief of piles point to the ligature as the most satisfactory in result and simple in execution. The much revered and illustrious Gross and Van-Buren have both declared for ligation as free from danger and certain in its results. Such authority stands unimpeached, and hence the recognition and practice of the method throughout the enlightened medical world.

While I most heartily indorse this procedure and would not detract from its much vannted superiority over other methods, I would yet vindicate the high estimate placed upon two other surgical resources that claim equal simplicity in adoption and safety in execution: I have reference to the eighth method as tabulated by Allingham, viz: Removal by clamp and scissors and the arrest of hemorrhage by the Pagnelin cautery, and also the fourth, the injection of carbolic acid or other astringent fluids—not into the bodies of the tumors, but into the connective tissue adjacent to the pedicle or bases of the tumors. The clamp process needs no defense. It has, as the ligature, by thorough trials and results, won the approval of all unbiased operators for radical cure of prolapsed hemorrhoids.

The injection method has been relegated to undeserved desnetude. Because of its easy application themselves with hypodermatic syringe and acid and roamed over the country in great numbers professing to radically cure all varieties of piles with two or three

"shots." as it would be called in the Keely Institute parlance. In antagonizing this procedure we have the alleged dangers of embolism, pyaemia and peritonitis. In answer to this bill of indictment I would refer to Dr. Kelsy, of New York, who (notwithstanding recently he has become much less enthusiastic in the praise of this method) positively states that out of several hundred cases treated in this manner he did not have clinical data of failures or accidents upon which to base his change of method. Their recurrence after two or three years and the proneness of tumors to ulceration after being injected, influenced Kelsy in his change of procedure to the clamp and cantery, which he has chiefly practiced for the last few years. However, in an interview with Dr. Kelsy during a visit to New York in January last, he informed me that he had not entirely abandoned the treatment and that in some cases it answered better than any other procedure. In refutation of the plea of recurrence. I would state that all the methods are liable to this reappearance unless the entire pile area has been subjected to the method of some radical obliteration, and the only recognized operation that will effectively accomplish this ultimatum is what is known as the Whitehead resection method. The scope of this interference consists in dissecting up the mucous membrane with its varicose vessels and the nodules that may be discovered thereon for two or three inches and cut off the mass and bring the healthy or normal mucosa down and effect union with the integument by suture at the mucocutaneous white line. In this way only can I conceive how recurrent attacks can be prevented and at the same time avoid the complication of stricture of the rectum which would take place from cicatricial contraction by any other known method to destroy the hemorrhoidal territory.

In regard to the second objection, the "proneness of the tumors to ulceration, irrespective of the strength of the astringent fluid used," I would reply by calling attention to the fact that in the operations by ligation and canterization you invariably have the same secondary condition in the effort by nature, through an inflammatory process, to throw off the foreign substance (the ligature) in one case and the (small sphacelus) in the canterization method. I furthermore submit that, upon anatomical and pathological evidence, this much-dreaded ulceration of Dr. Kelsy's is but the logical result of traumatism in any part of the body where we have

sluggish circulation in consequence of varicosity of blood-vessels. The most trivial abrasion or contusion under such abnormal condition of the capillaries often lead to fearful phagadenic ulceration. and no relief can be found until the dilated vessels have been restored their normal calibre by the adoption of steady, uniform pressure. as in the use of the elastic stocking to relieve ulcers and variouse veins in the lower extremities. The anatomical reason is, the abundance of connective tissue in the sub-mucous coat of the rectum and the valveless veins channelled therein, ever subject to distention from manifold causes and conditions. To meet successfully these issues in opposition to the injection method, I would suggest that we simply imitate nature in the effort she institutes to relieve herself. By a subacute inflammatory process exudates are thrown out, connective tissue corpuscles proliferate until there is considerable induration, then contraction takes place, blood-vessels are obliterated and the original vascular growth now degenerates into a tumor decidedly fibrinous in character. Instead of injecting. as has been the custom of all practicing this method, the body of the pile, why not inject the irritant material employed as near the muser, lar tunic as practicable, as by so doing you avoid all the dangers arrayed against this surgical resource It has been my practice to return the diseased and hypertrophied masses, when prolapsed, to their proper place and operate on them intact. My reason for the use of the fenestrated speculum and canulated needle is to avoid having the muscular and peritoneal coats brought by the procedenture of the hemorrhoidal nodules into dangerous proximity with the points of election for the procedure. We are cognizant of the presence of all the rectal coats in prolapse of the second form and appreciate the great caution necessary in the treatment of this condition. And when the hemorrhoid has attained sufficient size as to be an obstruction in the act of defecation, we find rectal tenesmus ensuing and a low form of proctitis set up, and after the relaxation of the sphincter muscles prolapse of the tumor takes place and with it the surrounding structures are brought down, including, it may be, the serous covering. In the treatment of piles in situ we endeavor to inject our irritant fluid so as not to penetrate the muscular or serous tunics, because by that event we would have either grave trouble set up in the ischio-rectal fossa or superior pelvi-rectal space of Richet by penetrating the muscular coat and peritonitis. if still higher in the pelvic cavity. When the tumors are sessile we insinuate the needle in a parallel line so as to avoid the bulk or body of the hemorrhoid and leave the fluid as deep in the sub-mucous membrane as possible, where the lymphatics are abundant and are ever ready as waste channels to take up and eliminate the atrophied mass after the necessary metabolic changes have taken place for absorption

In order to obliterate the vascular element, one of the chief constituents of the hemorrhoidal tumor, we must by weak solutions of astringents induce and maintain this induration at the upper base or pedicle so as to cut off the blood supply. This being accomplished, nothing but the factors of time and metabolism are essential to effect its entire removal. And all this accomplished without either embolism, pyæmia or peritonitis.

This vindication of the injection process has been solely prompted by my excellent success in the practice of the method and the desire to see it hold an equal position among other recognized methods of relief.

I would also notice the insuperable opposition of some patients to other procedures, and that it also may occur that anæsthesia is contra-indicated by some cardiac or renal affection. Under these circumstances our patrons would be compelled to eke out a precarious existence in the most distressing manner but for resort to this safe and most available procedure. Admitting the correctness of Dr. Kelsy's experience in regard to this reappearance, after the injection process, would not the exemption from excruciating pains and constant discomfort, for two or three years, be an eloquent and pathetic appeal for the universal adoption of a surgical resource upon which the happiness of nearly one-fifth of the entire adult population may depend.

I would mention that in the capillary variety, in which we have no protrusion and little pain, but frequent losses of variable quantities of blood, the application of nitric acid (chemically pure) is most effective in arresting the bloody discharges as well as obliterating the congeries of arterioles and venules, with their intermediate capillaries, giving rise to this form of trouble.

The effects of loss of blood in this form of hemorrhoid not infrequently result in extreme aniemia, thereby furnishing a congenial

soil for the implantation of some grave disease or the development of some latent disorder into serious constitutional disturbance.

I have omitted till now to notice the external division of hemorrhoids, not because of their trivial nature as compared with the internal variety, but because of the general practitioners' greater familiarity with this form of rectal trouble. This is a condition in which the amount of suffering is quite dispreportionate to the amount of lesion. The middle and inferior hemorrhoidal veins, with the folds of integument and the subjacent areolar tissue are the anatomical parts implicated in this form of tumor.

From the dilatation of the vessels or extravasation into the connective tissue we have produced the sanguineous tumor.

When by absorption or suppuration the venous tumor is relieved, we have remaining a redundancy of integument and subcutaneous connective tissue in the form of tubs. This condition constitutes the second form or variety of external piles. The intensity of suffering caused by these apparently insignificant tumors, when acutely inflamed, often perplex the doctor, so urgent is the appeal of the patient for relief. If there is an encapsulated coagulum the indication is to release the same promptly by free incision made in the direction of the radiated folds of the anal orifice and apply compress and T bandage if any undue capillary oozing should occur. The treatment for the cutaneous variety is quite simple in execution and generally followed by entire relief. These skin and connective tissue hypertrophies, called excrescences or condylomata after being cocainized are readily removed by knife or seissors, the hemorrhage controlled by Ferri subsulphat, or the Paquelin cautery. The only precautions to be observed in this operation is not to make the cut too close to the anus for fear of producing an abnormal contraction at the anal outlet by cicatricial contraction.

In the conclusion of this paper I have subjoined the clinical history of a few typical cases which may attest the practical exemplification of the foregoing deductions with reference to the pathology and treatment of hemorrhoids.

Mr. M., aged 59, occupation farmer, came to me to be relieved of a malady from which he had suffered for twenty years and on several occasions was compelled to take his bed because of the loss of blood nud pain. Any indiscretion in eating or drinking and the

unavoidable exposure to inclement weather would bring on an acute attack.

Upon inquiry the symptoms all pointed to the rectum as the fons et origo of not only the periodically intense pain to which he was subjected, but the source of his general ill-health. To thoroughly and satisfactorily diagnose the case an enema of tepid water was administered, and evacuation of the bowels and prolapse of the hemorrhoidal tumors secured, I at once proceeded with my investigation. Inspection revealed four large hemorrhoidal tumors and a portion of the mucous and sub-mucous structures. The prolapse was effected by comparatively slight expulsive effort because of the relaxed condition of the sphincters. The mucous membrane was pseudo-cutaneous in appearance from constant exposure and the friction of clothing. The color of tumors indicated their complex character and classification. The varicosity of the veins, with considerable, development of the connective tissue, constituted the bulk of each tumor. The arterial supply was greatly diminished by the induration and contraction of the arcolar tissue. The exudation had produced considerable hardness in consequence of the recurrent inflammatory attacks,

By taxis the tumors were reduced and further digital explorations made, but nothing additional was discovered. The rectal ampulla or pouch was so completely filled with these hypertrophied masses that there was scant room for the speculum in the operative interference. The patient had exhausted all palliative remedies and came at the instance of a friend for treatment. The condition of the hemorrhoidal enlargement imperatively demanded a surgical procedure. In my opinion the election of the method lay between ligation and removal by clamp and scissors, applying the Paquelin eautery to arrest hemorrhage. The patient most emphatically refused any and all operations save the one by injection. The same afternoon I gave him the first treatment by attacking only two of the nodules with the irritating fluids of earbolic and boracic acids, 12 per cent. solution of each in water and glycerine. The third day, patient presented himself for another treatment, and, upon the introduction of a speculum, I found the first two treated had greatly diminished in size and decidedly less vascular. I thereupon proceeded to assault the remaining two in a similar manner, and at the same time to reinject the bases of the first two the second time.

After six injections, at intervals of two or three days, my patient was sufficiently improved to return home and resume control of his farm. I would mention as subsidiary treatment that he was requested to keep his bowels soluble and to bathe the anal region night and morning with cold water.

Mr. M. has visited my office several times since and expresses much delight over his deliverance from an affection of twenty years duration.

Case 2.—Mr. B., aged 70 years; farmer by occupation; has had hemorrhoids for thirty years, acuteness of suffering and loss of blood, which frequently incapacitated him for any kind of work; presented himself for investigation and treatment. The initial enema having been given, his burden of suffering was promptly presented in the shape of two large dwarf tomattos, which the hemorrhoidal masses resembled very much. The anal outlet was festooned by a number of tabes, the sequalæ of previous attacks of external piles. This condition of the anal environment was not detected, of course, until the protuberant masses had been returned intact.

The patient had heard of the "painless and radical cure for piles," and at once assumed authority in the premises and dictated the method of procedure, which, of course, was the injection process, as the latter involved no operation of cutting or the use of an anæsthetic, chloroform or ether. This case of hemorrhoids was quite suitable for clamp-scissors and cautery or the ligature, but the patient being inflexible in his opposition, I proceeded to inject, as in the first case, but only one tumor at a time, because of the immense size of the masses. After five or six injections of the carbolic acid, 12 per cent. solution, at intervals of two days, the nodules had greatly reduced in size and degenerated into a pulpy condition, and at the expiration of four weeks there was scarcely a vestige discoverable, and no bleeding or protrusion has taken place since.

Mr. B. has increased in weight and bids fair, in general health, to reach the date of an octogenarian.

Case 3.—Mr. G., aged 38; by occupation farmer; has been in bad health ten years from constant loss of blood whenever he evacuated the bowels; has never had any protrusion from the bowels to attract his attention; has never suffered any pain; the nly symptom was the constant loss of blood at stool.

Mr. G. was extremely anemic, very feeble indeed, shortness of breath on the slightest exertion, and had been unable to work for several months. Upon the introduction of the speculum I detected, high up in the cavity of the rectum, some small florid patches of raspberry-looking growths, which bleed upon the slightest touch. These plaques presented a granular or red velvety appearance characteristic of the capillary variety of hemorrhoids. I at once made an application of nitric acid to the entire bleeding surface after having first cleared the canal of at least two or three ounces of blood which escaped during the exploration.

Mr. G. remained under observation for two weeks and received in all only four treatments, and has been perfectly relieved of all troubles and is now in the enjoyment of excellent health.

Gentlemen of the Society, trusting that this communication may not have been uninteresting, and that your patience has not been sorely taxed, I must extend thanks for your respectful audience

The Unlicensed.—The impostor VanDoren, whose case was before the Supreme Court of North Carolina for violation of the law in Plymouth only a few months since, is again trying his arts and violating the law—slipping into towns and selling out his nostrums and disappearing before his presence is known to the authorities. A negro who was convicted of practising medicine without a license was fined \$25 for the offense, in the Wilmington Criminal Court, but failing to pay the fine was sentenced to six months in the House of Correction. We have hope yet that the law will reach higher game than this.

NITRO-GLYCERINE.—A more extensive knowledge of the uses of nitro-glycerine enhances its value. In cases where digitalis is not tolerated by the stomach, and in what seems to be opposite conditions of the heart, by slowly increasing the dose from one up to five or six drops, watching the effects carefully, the happiest results are noticed. In cardiac dyspnea its effects are very satisfactory. Use only the tincture and see that your patient has a medicine-dropper.

### OUR PINE FORESTS AS FACTORS OF HEALTH.

By S. S. SATCHWELL, A.M., M.D.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

The eastern counties of our State present an inviting field of medical research and investigation. Comprising a vast extent of territory, a variety of climate and atmosphere, many species of the vegetable and mineral kingdom, they are covered by fertile fields, rich swamps, extensive planes and large forests of pine trees. This vast extent of territory contains one and at the same time the elements which produce pain, disease and death, and the remedies by which they are relieved and subverted. That wonderful divine. Henry Ward Beecher, said that "among the roots and herbs to be found in nearly every grave-yard there is a remedy, if only ascertained, which would have relieved over half the victims who were laid to rest in death's embrace beneath is green sod." Without commenting on this striking proposition, there are reasons for the opinion that our grand and productive State, in her eastern and western boundaries, contains elements which are susceptible of being made remedies for nearly all the diseases to which our people are liable As we cast our eyes over our eastern boundaries there is much that is peculiar and of special interest to the medical observer. As the mysterious volume of nature is opened to us with the laws of health and life written upon its ample pages, we behold, on the one hand, great atmospheric changes between the east and west, the exhibitanting properties of our ocean breezes, the moisture of our atmosphere, particularly near the coast, interfering with the functions of the skin and demanding the compensating action of the liver and lung; and, on the other hand, are found, upon our planes, along our streams and in our forests and fertile fields, in rich abundance, the finest specimens of beautiful flowers, medicinal roots and herbs, that adorn the vegetable kingdom, constantly adding to the wealth of the materia medica and to the usefulness of medical science.

Eastern North Carolina can be complimented and congratulated not alone upon her great natural advantages and magnificent resources of minerals, water-power, wealth of climate, lands, forests and adaptation to commerce, manufactures, horticulture and agriculture, but in the way of sanitation, drinking water, amount of disease, bills of mortality and the general health of our people, we are making great improvement, and may challenge comparison with any portion of our noble old State. Would that I could impress upon every North Carolinian the vast benefit that has accrued to the public health and the public wealth of a procedure, potent, talismanic, destructive to disease and efficient to remove causes of disease in all our malarious localities and destined to reduce still more, with the advancing years, the death-rate in all these eastern counties and cities. That procedure is thorough drainage. Large tracts of land, from time immemorial hot-beds of malaria and the home of disease and pestilence, have become, by this agency alone, the abodes of health, comfort and happiness. Every year do we see effectual drainage routing this fell-destroyer of our race from his old accustomed haunts and dislodging him from his strong entrenchments in the east, until it stands out as a beacon truth in the light of sanitary science that malarious diseases, in their numerons phases and changing aspects, are passing away as the years roll on.

But these diseases and their varying complications and grades are not destitute of interest still to the physician, as the changing seasons of wet or dry, cool or hot, and other atmospheric varieties, render different communities more or less sickly. Malaria still abounds in different places as the conditions are favorable to its production, now manifesting itself in one form and then in another—sometimes intercurrent with some other disease more or less marking its features, and then assuming the shape of another malady, not always easy to diagnose and cure. It still prevails extensively, finding victims in every direction, and in every favoring locality visiting its effects upon our patients and ourselves. This invisible, imponderable, and yet positive agent of disease, is borne still, as in ages past, upon the wings of the morning breeze, the evening mists and the nightly vapors entangle it in their meshes, and the fragrant odors of spring are treacherous with its poison.

My main object, however, in this paper, is to present the merits and claims for health, in other respects, of a very large portion—more than one-half, perhaps, of the east -in the beneficence of nature alone. I allude to the antiseptic, hygienic and preventive

properties of our eastern pine tree, or the exemption of our pine forests from consumption, malaria and germ diseases. For more than three decades I have been continuously engaged in laborious country practice in our eastern counties, comprising every variety of malarious locality, whether productive of the milder forms of intermittent and remittent fevers or of the higher grades of malarial fevers as seen in severe congestions and hemorrhagic malarial fever. I have also practiced extensively during all this time upon the pine ridges and in the pine forests of numerous of these eastern counties, especially east of the Wilmington and Weldon Railroad and between Virginia and South Carolina. I have to record as the result of a long and arduous practice, based upon my observation and experience, that, while malarial diseases and their complications with other diseases are peculiar and indigenous to malarious localities, sandy regions, abounding in pine forests, are exempt from malaria, from the production of consumption, diphtheria, puerperal fever and diseases of almost every class that are due to bacterial infection. I do not say that consumption and diseases of germ origin do not occur at all where pine forests abound, but my experience is that they are of very rare occurrence.

Look at the tall pine tree of our eastern planes and sandy soil with its absorbent powers. Its tall, columnar trunk offers less mechanical obstacle to the passage of air, and a smooth surface for the concentration of dews and vapors than any other tree of the woods. But it seems gifted with singular salubrious powers, and imbued with healing virtues and antiseptic properties in every bough. Every tree of the forest circulates, secretes and eliminates, so long as alive, its specific and peculiar effluvia. The pine has its azone. Though no chemical analysis has been made of its exhalations, it is reasonable to conclude that they may possess certain unseen virtues, specific chemical properties and affinities which may enable them to mitigate, neutralize, decompose or render inert malaria, the bacillus of consumption and the micro-organisms of other diseases.

Physicians and laymen alike contend for the hygienic and healthpreserving properties of the piney woods of our eastern counties and of the piney sections of our Atlantic slope. They ascribe to the presence of our piney forests the proverbial and remarkable exemption of the inhabitants of this vast extent of territory from malarious diseases, from consumption, from puerperal fever, from continued fevers, diphtheria and other diseases originating from the presence of germs. The fact that piney regions of country are healthy is proverbial and traditional—established beyond cavil or dispute.

It is true that good drinking-water is almost always found in piney lands, and this may have some causative action in producing the healthfulness of our piney sections. It is true that the soil of pine forests is generally sandy and its capacity and powers to absorb not alone malaria, but bacterial germs, as they float in the air, may have some relation to this healthfulness. But that, above and beyond all this, there is a *something* in the pine tree that is antidotal to malarial poison, antagonistic and hostile to the causes of other fevers, to puerperal fever, to diphtheria, to septic infection and blood-poisoning, and germ disease generally, is a well-established truth of observation and experience.

Although these sanitary facts as to the pine tree are treated with strange indifference and neglect, both by the medical and non-medical public, the subject is by no means new, illustrating that when we look into the history of almost any subject how little there is new in its facts and its phenomena. What is new consists in our manner of regarding them, our comprehension and application of them.

The pine and its preparations have been long regarded as hygienic and curative, but as especially remedial in the antiseptic treatment of pulmonary diseases. The adoption and success of antiseptic methods of treatment of pulmonary affections have been recorded again and again, and as often have met with opposition, because the treatment has often been held to be empirical. But long experience and faithful investigations have reduced it to a more scientific basis. The antiquity of the fact of the antiseptic treatment of pulmonary disease in the way of tar vapors dates back to the days of Hippocrates and Galen. Gaien advised consumptive patients to settle in the vicinity of Vesuvius and Ætna, and to inhale sulphurous and tar vapors and sea air. It is a noticeable fact in the history of pulmonary therapeutics in the last hundred years of the frequency with which tar vapor has been advocated as of great value in the treatment of lung disease. Dr. Rush, of Philadelphia, in 1787, Dr. Beddoes, of England, about the same time, and Sir Alexander Chrichton, about the same time, all stated that they had met with great success in treating consumption by the inhalation of the vapor of boiling tar. Since the time of Hippocrates and Galen other illustrious physicians, Skoda and others have used the inhalations of the vapor of tar and turpentine with much success in phthisis, pulmonary gangrene, and in bronchial troubles and catarrhal affections of the air-passages. Its application has often failed because of the useless attempt to test any method of treatment in cases of advanced pathisis. No line of treatment will be effective in causing suppurating cavities to close up and heal, or is competent to replace lung tissue that has been destroyed by progres sive ulceration and disintegration. Hundreds of cases of consumption are daily coming before us already in this State. That is why so many advanced cases die who go for relief to the piney lands of Florida and other States.

Coming down along the line of enquiry from the days when Rush and Skoda and the earlier physicians and the vapor of tar and turpentine as remedies, to more recent times, let as see if experience now teaches that pine forests and preparations and extracts from the pine tree have an influence in sterilizing and destroying and neutralizing miasmatic emanations, germs and microbes. Wherever a turpentine still is in active operation we find an agency at work which is inimical to miasm and to living germs and microbes, Localities and places sickly previous to the erection and operation of one or more turpentine stills have been subjected to such atmospheric changes and sanitary improvement as to become healthy. When the turpentine stills have ceased to be used the former un healthiness of the localities have generally returned, favoring the belief that the process of distillation of the spirits from the crude turpentine is sanitary. Likewise persons of weak lungs who habitually work around, and in immediate proximity to, turpentine stills while this distillation is going on, generally improve in their pulmonary troubles and in their general health.

We learn by observation of the health-giving properties of the pine tree as it abounds in the sandy regions of the Atlantic slope of North and South Carolina. The inhabitants are taught by experience that if they remain during the warm season upon the sounds, bays, creeks, rivers and other low places that are liable to malaria and zymotic causes of disease, they are apt to be sickly.

As a consequence we find them inclined to remove during the sickly season to the higher regions of the pine, and that in so doing they are generally exempt from malarial and typhoid diseases and affections caused by micro-organims. Farmers and others who reside near the coast of our own State and that of South Carolina are familiar with these significant facts and profit by them when they are able to do so. The intelligent farmer who clears his swamp land and cultivates his low-land farm knows that he is in danger of sickness if he constructs his dwelling in the same place and inhabits it, and hence he chooses some elevated pine ridges as his residence, with the air and drinking-water purified with the emanations from the surrounding pines. The great work of sanitary progress in the way of better drinking-water, more efficient drainage and purer air that is going on in our State, is steadily preventing preventable causes of disease and lessening our bills of mortality.

It deserves to be repeated, with emphasis, that in the piney belts of North and South Carolina diphtheria, typhoid and malarial fever, puerperal fever, and the whole class of zymotic diseases are extremely rare. I cannot say positively that the peculiar exemption of these extensive piney belts from these diseases, including consumption, is due to the pine tree, but it is a fact beyond dispute that where the turpentine tree is abundant certain classes of diseases. such as consumption, malarial disease, diphtheria, puerperal fever and other affections due to bacterial infection or to the presence of germs and microbes, are of very rare occurrence. Why this is so remains to be discovered by the investigations of some scientific germs. As to the remedial effects of turpentine in diseases of the class mentioned by our experience and that of every observant physician will bear testimony to its admirable action. Its daily increased use by the profession in this class of diseases everywhere, and its traditional use for ages, both internally and externally, bear strong testimony of its worth. For external use for cuts and wounds I know of no remedy its equal. I have often seen the fresh gum from the turpentine boxes applied to cuts and always with the happiest results. The application of the strong spirits to the diphtheritic throat destroys the membrane as I have never seen it done by any other application. Whether its beneficial action, administered externally or internally, does not depend upon its adaptation and power to sterilize and destroy bacterial germs and

living organisms, as they exist in cuts and wounds, and upon internal surfaces when typhoid fever assails a patient, for example, or the poison of miasm sets up bilious fever in the system, may well be a matter of enquiry.

Another peculiarity of the piney belts is their exemption from the septic prisoning, gangrene and erysipelas, of wounds and surgical operations. During my professional life I have frequently been called upon to perform important and unimportant surgical operations, as my country practice has extended to piney woods sections. In no operation that I have performed in the piney woods, or amoutation, or wound that I have treated in a piney belt, have I had to combat pyæmia, septicæmia, erysipelas or gangrene. The purity of the air of the piney belts seems to favor surgical treatment in every respect. If city hospitals, infirmaries, alms-houses and other places for the treatment of medical and surgical cases could be changed from cities and towns and other localities where the air is not good to the antiseptic influences of pure air and piney communities, they could be managed more successfully and with less mortality. My observation and experience as a surgeon during the late war, in charge of a hospital most of the time averaging from three to four hundred sick Confederate soldiers, gave me valuable lessons and impressive memories all along this line.

It may be well just here to remark that outside of our piney sections nearly all of our diseases are more or less malarious the year round, and are disposed to be periodical, demanding quinine. For several years we have had less of malarial disease and more of typhoid, though the typhoid fever of the east does not seem to prevail so extensively as it does in the west, and is of a milder and less fatal form. It deserves to be remembered that in our eastern counties and towns we sometimes have, in the same case of siekness, two different poisons and causes of disease operating at the same time. In all such cases this coexistence seems to modify the action of each, produces a milder type of fever and a variety of treatment to correspond with the periodicity and other characteristics of each particular case.

And now let us briefly apply the statements, views and reasoning of this paper to the great practical and important question of the health and the sesources of health of eastern North Carolina.

Looking, in the first place, at the malarious localities of the east,

we find that malaria has been steadily but surely giving up its intrenchments and strongholds for a number of years, under the influences of drainage and other sanitary measures. With this disappearance of malaria and of the causes of typhoid fever as well, under the operation of preventable and removable means antagonistic and destructive, too, of typhoid poison, there has been gradually going on in the east less and less of malarial and typhoid fever. So that, in relation to these diseases alone, the public health in eastern North Carolina has greatly improved and is steadily improving. With the system of sanitation now at work in all our eastern towns, counties and cities, there is every reason to believe that the whole family of malarious and typhoid fever will steadily decrease and will be eventually unknown. But be it remembered that a very large portion of the east abounds in pine trees and is covered by the piney belts, that are remarkably exempt from disease. The piney sections embrace a large portion of the east from the coast to near Raleigh and Favetteville, and higher up, and from Virginia to South Carolina. Within this vast area of piney land it is likely that there exists one-half or two-thirds of eastern North Carolina. It is held to be almost wholly exempt from malarial and typhoid causes of disease, from diphtheria and zymotic diseases and other affections arising from germs and microbes, upon the ground that these diseases do not find a congenial home in our pine forests. If the observations and experience of physicians and laymen all along these lines are to be regarded, there is no portion of North Carolina more healthy than the east. Our statistics of health, longevity and bills of mortality will sustain this view. And yet in this important relation great injustice and very great wrong has been done the east, with its fertile lands, magnificent forests, abundance of mineral resources and wealth of climate. It is time that truth should prevail, that erroneous views should be corrected in regard to the great attractions and unrevealed advantages of the east. Laborers and men of skill and capital in other States and across the ocean, seeking new and healthier homes with more inviting fields of enterprize and investment, have long been deceived and blinded by misapprehensions and false statements bearing upon these grave interests. The incontrovertible truth has been suppressed and withheld from other States and other countries that no healthier homes can be found than throughout eastern North

Carolina, and no portion of earth where the soil is more generous and where nature has been more bountiful and magnificent in all those gifts which contribute most to the comfort, prosperity and happiness of man.

But certain causes have operated against the development and utilization and appreciation of our health benefits and other great things which kind and generous nature has done for our eastern people—one is the great objection of capital to invest where the negro ignorant vote is oveswhelming and where taxation is at the disposal of ignorant suffrage. And here is an argument for popular education strong, binding, invincible and paramount. Another is the wide-spread misapprehension which exists in regard to our sanitary condition, our drinking-water, our climate and other health benefits. As already said, the observation and experience of physicians who have practiced in our reclaimed and welldrained swamp lands and piney belts will bear out the statement that, even admitting the presence of malaria, typhoid fever causes, and zymotic diseases in these localities, they are less severe in form, far more amenable to treatment and less fatal than in the hilly and mountainous regions of our State. That while it is the boast that the higher altitudes of the west produce specimens of more robust physical stamina, medical observation and experience justify the statement that in the matter of health and longevity the east will compare favorably, not alone with the west, but with almost any part of the American continent. It is not unlikely that climatic changes in the east have been going on for a number of years that have combined with other causes in improving its sanitation and in rendering the entire east more salubrious. The existence of a semitropical climate along our North Carolina coast, embracing pine lorests, at the mouth (extended) of the Cape Fear river, as shown by the thermometer and vegetable growths, recommends this section eminently for health and as suitable for a sanitarium, as higher altitudes, especially for pulmonary complaints.

One great obstacle to development and progress in the east is the failure of our own people to appreciate our soil and climate and to place a just estimate upon the precious gifts and manifold blessings which nature has so richly spread before us, including that of health. Where nature has done the most for man, there man has done the least for himself. The proverbial ignorance and indolence

of our people renders them insensible to enterprise, dormant and indifferent to immigration of capital and suitable labor. We lay supinely upon our backs and wait, in contentment, for others from abroad to stimulate us to effort, and to come and tell us what to do and how to do it. Our hope is in the infusion of new blood and better methods that will reclaim our farms, utilize our forests, erect more manufactures, build up schools, churches, towns and cities, people our railroads.

#### DISCUSSION.

Dr. Haigh thought it was his duty to bear witness to some of the facts brought out in the paper. We have all along the line of this country been too quiet and entirely too modest in regard to the health-giving properties of our climate. All through this middle country of eastern North Carolina, where in years past malaria existed so extensively, the change has been simply marvelous. He spoke of the severity and fatality of the bilious fevers that were so common at the time he began to practice medicine, about forty years ago, saying they were nearly as malignant in some cases as vellow fever. Now it is a rare thing to have bilious fever. have the mild forms of intermittent fever and what he calls intestinal fevers, for they rarely reach the type of typhoid. He said our elimate is inviting to those seeking health. He was glad the Doctor brought forth the virtues of the pine. It is especially useful in irritation of the mucous membrane of the bowels. During the war he had to depend upon it to a very large extent, using it both externally and internally in mucilaginous drinks, and since then some of his worst forms of low fevers have been entirely relieved by the use of oil of turpentine. There is one point on which greater stress should be laid-it is the system of drainage in the eastern part of the State, which has greatly improved. For a long time the people of the hill country have been afraid to come to the low country for fear of having fever, while we think it is sometimes more dangerous to go to the high country. He thinks we have as healthy a country as any part of the State; we are more free from violent disease. We ought not longer to allow the stigma under which we have rested so long. He was not prepared to endorse what the Doctor said in regard to diphtheria. He does not fully understand the nature of the disease nor what causes itHe does know that in certain regions where there was no manner of filth, where everything was as clean as possible and the water perfectly pure and the air was filled with the perfume of the pine, he has seen some of the worst cases of diphthe.ia he ever encountered. He has never been able to satisfy himself that it is a filth disease; as other diseases, it is possibly intensified by the surroundings as found in large cities.

Dr. Potter thought he could give some practical demonstrations of the healthfulness of the pine forest. Anterior to the late war the farmers living near the water courses were in the habit of moving up into the higher pine regions on the approach of summer. and they rarely suffered from malaria. He cited the case of a man who thought he might do just as well if he remained in his winter home in the low-lands. He tried it for two summers, and during those two years lost three of his family. He thought we seldom have a genuine case of typhoid fever. He has seen diphtheria in the highest pine regions where he could see no cause for it, but where the diseases seemed almost to originate de novo. He mentioned an epidemic that started in the barracks in a small town where he was in charge as surgeon. On searching for the cause he found under one of the platforms connected with the building a reeking cess-pool. As soon as this was cleaned there were no more cases of the disease. This outbreak seemed to have a cause in this cess-pool,

THE CHARLOTTE MEDICAL JOURNAL.—Vol. 1 No. 1, July, 1892, visited us to-day. It is a neat journal, a monthly, printed in good bold type, and enters the field with youthful energy. It is under the editorial and business management of E. C. Register, M.D., and J. C. Modegomery, M.D., of Charlotte.

JULIAN J. CHISOLM, M.D., LLD.—The South Carolina College, at its recent Commencement (June 29th) conferred the degree of LL.D. upon Prof. Julian J. Chisolm. He has achieved any distinction a literary college has within its power to bestow, and we are pleased to see that the University of his own State has so honored itself.

A REVIEW OF THE PATHOLOGY OF DIPHTHERIA WITH SPECIAL REFERENCE TO A NEW METHOD OF TREATMENT BASED UPON THE PAST THREE YEAR'S EXPERIENCE OF ITS REMEDIAL VALUE IN TWENTY-FIVE CASES.

By Dr. Martindale, New York.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

According to Oertel diphtheria is one of the oldest epidemic diseases of the human race, it being claimed by Aratæus to have originated in Egypt and Syria, whence its name, "Malum Egypticum," supposed to have been conferred upon it by Hippocrates who was, presumably, more thoroughly conversant with its general pathological characteristics than any of his compeers of that early period. In reality, however, diphtheria was but little known, as an infectious disease, until Bretonneau† laid his treatise upon its essential characteristics of an exudation in the throat before the Academy of Medicine of France in 1821.

The area of pathological investigation widening under the stimulus of individual effort of a number of German, French and English scientists of that period, we finally come to the more recent clinical observations of Virchow, who first directed attention to the occurrence, in diphtheritic inflammation, of an exudation into the substance of the mucous membrane, followed by sloughing.

This constituted, in fact, the first important step in advance in determining the true pathological conditions underlying systemic poisoning in this disease. It has, however, only been since a comparatively recent period that the true pathological constituents of diphtheria were determined by Hueters and Oertel in the discovery, in great numbers, of vegetable organisms, to which Oertel gave the name of micrococci. Certain it is, that in this country, at that time, very little was known of the peculiar infective ten-

<sup>\*</sup>Ziemssen; Vol 1, p. 575

<sup>†</sup>Des inflammations et de la diphtherite Paris, 1826

<sup>‡</sup>Virchow's Archives, 2, 4; p 550, 1870.

<sup>&</sup>amp; Hueter and Tomassi, Centralb , 1868; pp 31-34.

Oertel, Studiere uber Dipthe., Auff'll Int., 1865.

dencies of this local exudation, in the direction of general sepsis, prior to 1850, for a very distinct remembrance comes to the writer of his having been treated in 1840 by the family physician at his native place for an attack of what was then termed putrid sorethroat, and of his having had his throat swabbed at intervals with a solution of salt, vinegar and red pepper, then regarded as the ne plus ultra of remedies for this special type of local sepsis, and it will be proper here to note the fact that the disease attacked him in the early spring and that the cellar of the paternal residence was, during the winter, chiefly utilized for the storage of potatoes, being unventilated and without light, by reason of embankments around the foundations outside for protection from frost; that this recaptacle was usually flooded at the spring freshet, sometimes before that farm products had been entirely disposed of, when some three feet of water were contained therein, its depth having been governed by the quantity of snow remaining at the spring equinox, which leads to the consideration of a point of some interest in this connection, involving the chief characteries of the vegetable germ "Peronospora Infectans" claimed to possess such persistence of vitality as to be capable of "resisting the heaviest frosts of winter and greatest heat of summer," its habitat and feeding ground being the potatoe, of universal consumption among all classes and invariably stored, in country localities in the old-time house cellar, undrained or lighted as also unventilated, is not, in fact, the efficient\* materia morbi of every diphtheritic exudation as also the micrococcus, Oertel claims as constituting that disease. Three cases in a well-to-do farmer's family of Richmond county, New York, under my personal observation, seeming to sustain this view; the chimney from the cellar, in which a large quantity of potatoes was stored, affording draft to the heater in the room where the children slept, it being impossible to assign other cause for the outbreak. The proprietor, a man of sound judgment, upon its being suggested to him, constructed a potato cellar in a lot adjoining, and has had no occasion since for any medical services in connection with that special type of septic disease.

As to the local characteristics of the exudation, it is first found in the form of a small white or yellowish white spot on the tonsil,

<sup>\*</sup>Ziemssen; Vol. 1, p. 579.

uvula or posterior pharyngeal wall, which soon becomes the focus of a general infection unless prompt efforts are inaugurated for the thorough annihilation of the rapidly multiplying germs.

From the foregoing it may therefore be assumed that diphtheria is always, at first, a local disease, becoming, by multiplication of germs and enlargement of area by infection, general in its character, ranging anywhere between simple excitement of the circulating system and the gravest forms of systemic and pyæmic poisoning.

A third class of symptoms, following those of a febrile character, are such as involve the muscular system, ranging from a local paralysis to a general ataxia. Another of its peculiar features is its invariable selection of the air-passages, the destructive changes involved being wholly due to the favorable conditions found therein for the prepagation and dissemination, through the circulatory system, of its specific germs, this pathological fact having been determined by Oertel,\* through a series of inoculations of animals made in conjunction with Hueter,† Trendelenburg and Nassiloff, for this specific purpose.

Without, therefore, entering upon a more extended analysis of the etiology of the morbific processes involved in systemic poisoning by the class of vegetable germs termed micrococci, it will be enough for our purpose to have called your attention to the fact of their being engrafted, with such wonderful rapidity at different points of the air-passages as to establish, within a remarkably short period of time, profound systemic poisoning from a circumscribed local infection, a fact fully established, experimentally, by Nassiloff and others.

Your attention is also directed to two other peculiar features of this disease, the first being its more general prevalence in winter, the second its apparent selection of children preferably to adults. Statistics gathered by Widmer't show the maximum of mortality from diphtheria to be from September to December, and its minimum from April to August, and present a reasonable estimate of its general prevalence in the several months of its selection during the year, special regard being had for local conditions of drainage and

<sup>\*</sup>Ziemssen; Vol. 1, p 577.

<sup>†</sup>Nassiloff über das Wesender Diph.

<sup>‡</sup>Widmer, Statistician; Munchiden Epidemics, January, '64-'69.

water-supply, constituting, as there is every reason to believe they do, the chief etiological factors of all epidemics of which we have any reliable reports, it being a well-known fact that house-drains are generally more obstructed in winter than in summer. Why children between the ages of two and six years are, as a rule, more susceptible to diphtheritic infection than infants or adults, there are sound reasons for the belief that this characteristic is chiefly due to the fact that their imaginative perceptions are much more prominent than their reasoning faculties; children are always delving in unsavory localities in search of hidden treasures, and they are sure to be the first discoverers of any septic conditions prevailing about the family homestead. Hundreds of infantile lives have been sacrificed by just such apparently insignificant causes, especially in country localities.

In view, then, of the facts established by Oertel and Nassiloff,\* in Germany, Leloir,† in France, and Burden‡ and Sanderson,§ and others in England, that diphtheria is really an infiltration of living tissues with the vegetable germs termed micrococci, and that their prompt destruction is a sine qua non to the safety of the individual, we are confronted with the problem of how these septic germs are to be rendered harmless without injury to the infected mucous and sub-mucous tissues of the pharyngeal and naso-pharyngeal walls; it becomes clear that the remedy best calculated to rid the system of these septic germs will be an atmosphere so harmless to the respiratory organs and yet so saturated with a germicide that, while it promptly destroys the rapidly propagating germs, resolving them into asepticized and absolutely inert matter, enables it to be conveyed, harmlessly, through the intestinal canal without injury to patient or attendants, or the possibility of future infection.

The larynx being implicated, as is not infrequently the case, the aphonia resulting from the organization of false membranes on the vocal chords is always a prompt and reliable notification of the fact, and the only remedy that has proven effective for their prompt resolution, has been a germicidal atmosphere that alone could reach the seat of aseptic exudation, search out and resolve the morbific elements threatening the life of childhood.

<sup>\*</sup>Studien uber Diptherie, 1868.

<sup>†</sup>Uber das Wesen deright. †Virchow's Archives; Vol. 54, pp. 1-25 and 254, 1871. Recherches Cliniques sur les Affections pseudo-Dipth.

It will be unnecessary to refer to the ordinary prodroms of an attack of diphtheria, nor need there be more than merely cited the usual methods of treatment.

First, and most prominent, have been gargles of various combinations of antiseptics, with the administration, internally, of remedies of the same character, notably that of Prof. Fordyce Barker, a most admirable one, as I can testify to; in later years the former have been displaced by sprays of various germicidal solutions, and more particularly the application of super-heated vapor to the degrees of °113 to °122 F.,\* with the view to the establishment of an abundant suppuration, with detachment of the membrane, as rapidly as possible. This method was in the right direction, and to a degree efficacious, but it did not fulfil the germicidal purpose demanded for the effective stamping out of the disease.

Such of you as have attempted to treat children with aseptic sprays and gargles will recognize the fact that the accomplishment of any favorable results in the graver class of such cases is practically impossible.

Your attention is now invited to the consideration of a special method of treatment of all cases of diphtheria, in children under six years, specially, and of adults likewise, optionally, adopted by the writer within the past three years, that it is to be hoped may commend itself to the judgment, if not the experience, of members of the profession in the "Old Tar State" with equally satisfactory results for the future as have accrued to him in the past three years in twenty-five cases, in three of which the exudation extended to the larynx, in one to the tympanum, and in four to the nasopharyngeal cavities—one having reached the stage of general systemic poisoning before consultation was had being the only death out of that number.

As may be inferred from the pathological changes occurring in the naso-pharyngeal mucous membrane from an extension of the diphtheritic process thereto, or into the larynx and trachea, the possibility of combating effectively the destructive metamorphosis of mucous and sub-mucous tissues by gargles and aseptic sprays becomes an exceedingly limited one, especially as regards children, hence the comparatively large mortality in that class of cases;

<sup>\*</sup>Ziemssen; Vol. 1, p. 675.

under four years of age, in fact, even in much older subjects, systemic poisoning results from our inability to counteract the necrotic process that is steadily and actively progressing beyond the limit of our capacity to determine.

It is clear, therefore, if it is our purpose to relegate diphtheria to the class of so-called benign diseases, that some method of treatment must be adopted that shall act positively and effectively as an antiseptic over and throughout the laryngeal and naso-pharyngeal eavities. Such a process must involve the saturation of the atmosphere of the sick-room or ward with a powerfully asentic vapor that shall prove so positively non-irritant to the air-passages as that it may be maintained continuously or for an indefinite period, until the disease has been thoroughly eradicated and systemic poisoning averted. It is in the writer's experience already established that such a method of treatment can be effectively utilized through the combined vapors of tar and turpentine, under eertain limitations, as to the number of cubic feet of air space and the degree of atmospheric saturation to which the patient should be subjected, consideration being had also in respect of the severity of the attack, a marked tendency to sepsis demanding a higher degree of saturation and vice versa.

This plan of treatment was first utilized in this disease by the writer some three years since, his attention having been directed to its efficacy, as applied, during the stage of softening, in pulmonary tuberculosis, and it affords him profound satisfaction to be able to state here that all cases of diphtheria treated by this method from their inception to the number of twenty-five, with one exception, recovered completely within five to twelve days, and that without subjective complications.

Of the single case to which he was called as consultant on the sixth day after the inception of the disease, treatment by this method being then adopted, proved unavailing, systemic poisoning having already supervened, and its application having also been ineffective by reason of lack of discipline on the part of the nurse, who proved inefficient in fulfilling the duties intrusted to her.

The cases referred to were all well marked, false membrane eovering the tonsils and posterior and naso-pharyngeal cavities, and in one invading the larynx and vocal chords, this having fallen into the writer's hands through the failure of the family physician to

reach a diagnosis. Examination afforded little hope of averting a fatal issue, the tonsils, posterior pharyngeal and palatal mucous membranes being covered with a dirty greyish brown coating of false membranes and a pronounced hoarseness, giving evidence of laryngeal invasion, in fact, a minor degree of systemic poisoning had already ensued accompanied by a moderate degree of dyspnæa.

Vaporization of the sick-room was at once inaugurated to the highest degree, 105°, and a thoroughly qualified nurse placed in charge with orders to maintain it at that standard until otherwise notified. Personal experience, I recall, impressed me with the fact that more than ordinary resolution was demanded to remain in the sick-room the half-hour usually devoted to the case, the degree of atmospheric saturation being much more appreciable to anyone entering it from the cooler air without. Nurses in constant attendance on these cases, however, acquire a degree of tolerance that to the medical attendant or visitor (for visitors can be freely admitted under this method with absolute impunity), partakes of the marvelous, and yet, in all his experience with this potent remedy, there has never been found a child patient that made the slighest complaint, and there were a number subjected to its influence from five to seven days continuously.

From further observation of the therapeusis of this method of treatment it has been determined that within twenty-four hours the dark greyish exudation on the tonsils or posterior pharyngeal wall becomes loosened at its border and contracts gradually, a slow suppurative process having been established in the sub-mucous tissues. The degree of atmospheric saturation having ranged between 105° and 103° F. should, when the membrane has been detached, be gradually reduced to 100°, the chief point to be had in view being a saturation of the local atmosphere to such degree only as may be requisite to the attainment of the desired results, no higher temperature than 105° being required to secure the prompt and effective removal of any diphtheritic exudation from any of the air-passages by the method thus determined.

In the case referred to the hoarse, stridulant cough remained as a somewhat threatening symptom for several days, otherwise the patient brightened up, the gradually falling temperature giving evidence of a positive gain in the contest for life. On the fourth day all the sloughs had disappeared, leaving healthy granulating surfaces in their stead. The probabilities of recovery were increasing and the parent's hearts were throbbing with renewed hope, when some pain in the right ear, accompanied with a moderate degree of deafness, caused uneasiness. It must be stated here that Dr. Barker's prescription of iron, quinine and potass chlor, have been administered persistently since the inauguration of the treatment.

At the beginning of the second week the croupous cough had disappeared, the only permanent disability resulting from the disease, apparent, being the deafness of the right ear due to the extension of the morbific process to the tympanum via the Eustachian tube. The child, having scarcely recovered from this musually severe attack of diphtheria, shortly after succumbed to one of rubeola, which more seriously aggravated the tympanic congestion, for the relief of which the parents were recommended to consult an aurist. This child is to-day in the best of health after one of the most severe attacks of diphtheria it has been the writer's lot to be called upon to treat, and to him it seems there can be no question that the combined vapors of boiling tar and turpentine were the effective agencies in the destruction of the diphtheritie germs in this ease. This was the most severe of twenty-five cases treated by this method, with one exception, to which the writer was called in consultation on the sixth day of the disease, the patient, a boy five years of age, laboring under profound systemic poisoning, dying, two days after being subjected to the treatment, the latter having been employed only as a dernier ressort. It is but right, however, to state that the failure in this case was largely due to the mother, who, in spite of the nurses' protestations, would persist in lowering the upper window-sash "for fresh air" on each successive night of treatment, with the result of counteracting the best efforts of the medical attendants and securing the death of her son by heart-failure.

From the writer's experience the treatment of diphtheria and scarlet fever complicated with diphtheritic exudation, in the throat or elsewhere, by this method, will certainly afford to all who may adopt it reason for congratulations on the mental relief that will come to them in the assurance of success in every case of diphtheria to which they may be called, more particularly in respect of children under six years of age who may become the subjects of this most fatal of infectious diseases.

In conclusion, your attention is specially invited to the description of the method employed for the application of this remedy in all the cases treated. The requirements are:

- 1. A kerosene or gas stove, removable to any part of the sick room or ward at pleasure.
- 2. A quantum sufficit of your refined North Carolina tar and turpentine.
- 3. An ordinary porcelain lined iron kettle of the same dimensions as to circumference as the burner.

The treatment has usually been inaugurated with from a pint to a quart each of your best tar and turpentine, according to the size of the utensils, the kettle to be kept one-quarter full while in use, the degree of atmospheric saturation to be regulated by raising or lowering the wicks or increasing the number of burners, according to the number of cubic feet of air space it is desired to saturate. It must be distinctly understood, however, that the success of this method depends largely upon its adoption at the earliest practicable period after the inception of the disease, for it may be stated positively, from the writer's personal experience, that the chances are very largely diminished after the supervention of general systemic poisoning.

It was hoped the remedy might prove efficacious in that scourge of early childhood "membranous croup," but two cases in which it was recently employed with the view to determine its remedial effects, succumbed within twelve hours thereafter from congestion of the lungs, proving the efficacy of the remedy in bacterial exudations and its total inefficiency in the aseptic type of the same class.

To the members of the medical profession of the State of North Carolina here present, it is asserted with knowledge based upon experience that in the method enunciated to this Society to-day, there will be found a force that, promptly applied, will annihilate this dread disease that has been decimating childhood since civilization, with its deadly attendant, unsanitation, brought in its train the septic powers of evil with which the medical profession has had to contend, and I am present here, on this occasion, in the interests of the mothers of your noble State, bewailing the sacrifice of loved ones and will not be comforted "because they are not." The charge is given you to-day to wield this faultless weapon in their and your interests, as well as those of childhood, to the end that

there may come to each and all of you the assurance of a duty well and faithfully performed, and the knowledge of having fulfilled a service to the country at large that will surely entitle you to the benediction of "Well done, good and faithful servants," enter ye into that realm of mental and moral satisfaction that comes from a duty fulfilled and the knowledge that you have been instrumental in preserving the lives of many that must, otherwise, have been inevitably sacrificed.

#### DISCUSSION.

Dr. Bellamy did not feel prepared to discuss the paper. Fumes from the oil of turpentine is a remedy that has been long used by the laity. It has been his custom to use it in diphtheritic croup by placing a few drops of the turpentine on a plate, which is placed over a lamp and the fumes inhaled. He has good results from it, and believes there is something in it; however, he has also used the standard remedies at the same time that he used the turpentine.

Dr. Booth hoped there was something in it. He mentioned an epidemic during which he treated 456 cases and had 22 to die in one week. A few years later there came a mild epidemic. A physician near him said he could enre every ease of diphtheria with calomel. He read an article in some journal in which the author said if the chlorides were given all cases would get well. In this epidemic his practice extended for fourteen miles along a certain creek. In this year there had been many overflows and the waters of the creek had backed up over the lowlands that bordered it The disease prevailed along this creek to its junction with the Tar river and there the epidemic stopped. On every little tributary of this creek the disease prevailed in a most malignant form and the cases literally all died despite all efforts. Consultations and advice was sought, but it all availed nothing Coming across an article in which the author strongly recommended quinine, he commenced to give it to his patients in large and increasing doses until they showed signs of cinchonism, and all that he could get under the influence of quinine got well. He mentioned a case of diphtheria which occurred at the Orphan Asylum in which the consulting physician claimed that he could effect a cure by the use of pure oil of turpentine applied locally. The speaker thought it looked very much like burning out the disease, but they tried it and the patient recovered. After this he saw it tried in several cases with success.

Dr. Anderson asked if the cases mentioned in Dr. Martindale's paper had been diagnosed by the assistance of the microscope, and the author of the paper replied that they had not.

Dr. Joseph Graham thought it very refreshing to find a remedy that would cure all cases of diphtheria. If there is any pestilence that walketh in darkness whose way is past finding out it is diphtheria. When a young man he had been through what he then considered very bad cases, and thought that if he could see the cases within the first three days he could cure them all. It was some time before he found out how many remedies there were that would cure all diseases; but this proves that it is not the remedy that cures the disease but nature. Diphtheria according to his idea has three different stages, the incubative, the maturative stage, and there is as clear a line of demarcation between them as there is in a case of gangrene. If the patient reaches that stage where he has absorbed the poison there is no remedy that will have any effect except stimulants and nourishment, and sometimes these fail. Some epidemics are mild—and then he has seen the disease kill the patient in twelve hours, and in these cases there is no remedy that will reach the case. It is the septic infection that kills the patient and not the diphtheria.

Dr. J. Westray Battle thought we should not lose sight of the fact that diphtheria is not a local disease, but that the membrane in the throat is only a local manifestation of a general systemic disease. If we can only get to the patient in time and fill him full of quinine, he thinks it will overcome the germ that gets into the blood and drive it out. He thinks that turpentine is an antiseptic to the micrococcus and acts in the same way as quinine and iron. He understood the author to say that he used the constitutional remedies also.

Dr. Roberts mentioned an epidemic in which he treated twelve cases, and of these six died. All of these six were treated with turpentine and tar inhalations. Some, he knew, were so treated from their incipiency, for the old woman in whose family they occurred had unbounded faith in the remedy. There were three eases in one house, two of which recovered; the one that died was treated with turpentine. He has almost come to the conclusion that if the patient recovered the disease was putrid sore-throat, and that if he died it was diphtheria.

Dr. Martindale expressed his regret at not being able to take part in the discussion on account of his defective hearing, but only asked that the members try the remedy, and that if they follow the rules laid down in the paper, so great is his faith in the remedy that he will guarantee a cure in any case that is treated before septic poisoning sets in, and believes it will relieve some of these.

Dr. Parris took the position with one of the gentlemen that preceded him that diphtheria is a constitutional disease. He has lately been through an epidemic and found that if the patient could be seen before systemic poisoning occurred and was saturated with quinine, the quinine would have an antagonistic effect. If the quinine cannot be given by the mouth, it can be administered in the form of a suppository. You can cinchonise a child through the rectum, and he has found that in proportion as you can bring about cinchonism you can successfully combat systemic infection.

Objection being raised to any further discussion on the ground that the author had closed the discussion, his consent was asked that certain gentlemen who had not had an opportunity to speak might be heard from. He cheerfully complied with the request.

The Chair ruled that the discussion must be confined to the treatment of diphtheria.

Dr. Haigh made a motion that the members be allowed as free a scope of discussion as they desired; not that he wished to antagonize the ruling of the Chair, but owing to the importance of the subject he thought it desirable to hear as much as we could.

The motion was lost, and the Chair announced that the discussion must be confined to the treatment.

Dr. Weaver gave his experience in a case the diagnosis of which was confirmed by other physicians and by the sloughing throat. He was called in consultation, and when he first saw the ease the exudation was filling the posterior nares. He at once instituted the treatment by turpentine vapors, keeping the room filled with the odor of the turpentine for seven days. At the same time he adopted a plan of stimulation. The boy was very weak but recovered, and he attributed a great deal of the success to the turpentine vapors in the house.

### EDITORIAL.

## THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C., Editors.

Original communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the Journal, by sending the address to this Office. Irompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and accept ability. All remittances must be made payable to Thomas F. Wood, M.D., P. O. Drawer 791, Wilmington, N. C.

SPECIAL ANNOUNCEMENTS TO OLD FRIENDS AND NEW—REDUCTION OF THE SUBSCRIPTION PRICE OF THE NORTH CAROLINA MEDICAL JOURNAL—IMPROVEMENTS FOR THE COMING YEAR—THE JOURNAL FROM JUNE, 1892, TO DECEMBER, 1893, FOR \$3.00.

It has long been the desire of the NORTH CAROLINA MEDICAL JOURNAL to produce a better Journal for less money. The difficulties have been very great, but after fourteen years of earnest work, we find our subscription list profitable enough to divide the profits with our subscribers, by reducing their subscription to \$2.00 a year.

Let not our friends imagine that such profits have been large. For years the Journal was a bill of expense, and it has been only within a short time we have been encouraged to reduce our subscription. Beginning with January, 1893, the subscription price to those who pay in advance will be \$2.00 a year. No North Carolina Doctor need say hereafter that he cannot afford to pay for it, as we give 64 pages in unleaded type for such a sum—that is 764 pages large octavos for \$2.00.

We came into the field under the greatest discouragements, but have seen our work live for nearly fifteen years—a far longer time than any monthly magazine in any department of literature has lived in North Carolina. Other periodicals have come and gone since then, but as long as the medical profession in our State is a united body, and lend us the aid they are now giving us (which, by the way, is not more than one-third that are able to do), we will endeavor to sustain what for years has been the only Medical Journal in the Carolinas.

OLD DEBTS.—There are many past due subscriptions on our books, and we would be pleased if those indebted to the JOURNAL will correspond with us about a settlement. They will find us liberal and ready to balance and start again on the most favorable terms. If all would comply, we could easily start out with a brand new dress. This ought to be enough to awaken our friends to interest in their own JOURNAL.

# CÆSAREAN-PORRO OPERATION IN DEFORMED PELVES.

We present in this JOURNAL a classical case of Cæsarean section, with the modifications by Porro, related by the distinguished operator Dr. Cornelius Kollock, of South Carolina, saving both mother and child. Of course we admit this to be the ideal operation, as it accomplishes precisely what all obstetrical surgery aims at—saving life. We can also admit that the days of embryotomy and craniotomy are doomed, in the light of the advanced stage of

knowledge of the surgery of the abdomen and pelvic basin. The antisentic methods in use, varied by one and another operator, but all based upon the same principle is easily mastered, and the surgical technique can be stated in definite terms, subject, of course, to the exceptions which must be made in the ever varying cases. Unfortunately, though, all physicians are not surgeons, and the vast majority who can do some very good work under the moral support and encouragement of clear-headed assistants, would shrink from any effort at individual responsibility in an emergency requiring an abdominal section. A higher grade of education, it is not likely, will overcome this, but in a small degree, for all men are not It is very plain, though, that by the accumulation of successes in these cases the time will come that those interested will not easily give their consent to the destruction of the unborn infant. The advance of surgery reaches, at last, the ears of the country farmer, and he demands that his local doctor must be able to do for his wife what he has read of others doing, and the masters in obstetrics will relegate craniotomy to the realm of unjustifiable surgery. This last opinion was enunciated with emphasis by the Professor of Surgery in the University of Virginia in his regular course of lectures, and ought to be taught in all medical schools.

A Casarean section for deformed pelvis offers a better field of success, inasmuch as the operator would have a longer time of warning, thereby enabling him to secure everything necessary for the operation, as well as the assistance of medical friends.

In a successful case reported by Dr. Gaillard Thomas in the American Journal of the Medical Sciences (Medical Record, 1892, Vol. xli, No. 20, p. 534) he delivered a male child weighing ten pounds fifteen ounces, and it is noted, in passing by Dr. Thomas, that the present success of the Cæsarean operation is so great that he frankly admits he should not feel warranted in performing laparo-elytrotomy. He also gives preference to chloroform as an anesthetic in such a case.

EVERY number of the British Medical Journal and of the Lancet brings news of the spread of small-pox in London, the fruits of the anti-vaccination crusade in the great metropolis.

### REVIEWS AND BOOK NOTICES.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE FOR THE USE OF STUDENTS AND PRACTITIONERS. By R. C. M. PAGE, M.D. New York: William Wood & Co., 1892.

The works on practice go on multiplying as though the best one had not yet been written—nor has it. Many look at a hundred dollars worth of Ziemssen on their shelves getting a little the worse for faded covers and penetrating dust, having given up the hope long ago, that in these promising volumes they have reached the ultima thate of Practice.

The more condensed treatises show an author's teaching capacity better than the encyclopediac volumes, and he who undertakes to write a "Practice" in these days of numerous books, must be confident that he has apprehended the necessities of those who must be his readers, and that he is able to master a subject well enough to state it in clear and concise language. The author of this volume, meeting with the classes of practitioners who throng the New York Polyclinic every year, has written just such a book as he deemed to be most helpful to them.

The volume opens with a chapter on the heart and blood-vessels, and no chapter could be more important to the general practitioner. In 68 pages he condenses all he has to say about the heart and arteries, beginning with the heart in health, the external topography, schematic diagram of the circulation, a diagram showing the location of the valves of the heart, are among the illustrations, and they are highly appropriate to the text. Treatment is fully given, even the formulæ themselves being freely intercalated, a feature that will strongly commend it to the practitioner.\*

<sup>\*</sup>The author states on page 68 that a patient shown him by Dr. Laurence Johnson was apparently cured of thoracic aneurysm by quiet in bed for nine months. The reviewer knows this patient very well, and would like to correct an inaccuracy in this statement. He remained in the recumbent posture eighteen months, taking iodide potassium all the time. The patient had no return of symptoms for five years after, and is still at his daily work with comfort and considerable vigor. Another patient under the care of the same physician made very good progress for three years, but by imprudence was wrecked in the convalescence.

The reader will think rone the less of this little volume when he recognizes in the successful New York Professor the veritable Capt. Page, of Page's Battery, who won the distinction at the Battle of Gettysburg as to call forth a special order from Gen. Lee. But New York City is the cosmopolitan city, and no previous condition stands in the way of a man's advancement there if he has merit. Of what other city can we say this?

Pye's Surgical Handicraft: A Manual of Surgical Manipulations, Minor Surgery, and Matters Connected with the Work of House Surgeons and Surgical Dressers. Revised and Edited by T. H. R. Crowle, F.R.C.S New York: E. B. Treat, 5 Cooper Union, 1892. [Price \$4.00.]

This is really a manual of minor surgery, as its title indicates, and is easy for consultation, owing to the abundance of paragraphic synopses plainly printed in the margin. It has much in it that all surgeons will be glad to have at their finger's ends in time of need. It is not devoted exclusively to surgery, but includes matter upon emergencies, drowning and poisoning, and a section on tooth-pulling, adding much to its bulk, but little to its rank. While the volume is not without merit, it is unpecessarily bulky and expensive.

A TREATISE ON BRIGHT'S DISEASE OF THE KIDNEYS: Its Pathology, Diagnosis and Treatment, with Chapters on the Anatomy of the Kidney, Albuminuria and the Urinary Secretion. By Henry B. Millard, M.A., M.D. Third edition. New York: William Wood & Co., 1892.

One who goes to this volume to learn the best and most reliable matters appertaining to the chemistry of the urine, the pathology and treatment of albuminuria, will find it carefully and reliably stated. It is very interesting to follow the author through his experiences with the various tests for albumen which have come and gone, and how that finally the nitric acid test, heat, the nitric-magnesian, Tanret's double iodide of mercury and potassium, and the phenicacetic acid and potash test of the author are the ones on which he relies. The tools of a master workman are few, the sciolist changes his mind and adds a new weapon every time he reads a medical journal, and so we find that this volume, in its third

edition, has little or no dead matter. It is beautifully printed, and worthy of a perusal by every practitioner, however great his experience in this line.

OUTLINES OF ZOOLOGY. By T. ARTHUR THOMSON, M.A., F.R.S.E. New York: D. Appleton & Co., 1892.

Entering into every academic course leading up to the study of medicine, Zoology should take its place. The author of the volume is Lecturer on Zoology in the School of Medicine, Edinburgh. The book is 7½x5 inches, 641 pages, fully illustrated.

The classification is simple, and the illustrative cases are interesting, being selected from the familiar or curious animals. The author designed his book to serve as a manual for students in the lecture-room, museum and laboratory, and is based upon his manuscript notes. We can heartily commend it to teachers and pupils.

Dr. MARTINDALE'S PAPER.—By a slip of the editor Dr. Martindale's paper was not noted in the body of the Transactions of the Society, but is printed in full in this JOURNAL.

TREATMENT OF POISONING BY COCAINE.—Eloy gives the following directions for the treatment of acute poisoning by cocaine. The patient is placed in a horizontal position in order to prevent syncope, and his face bathed with cold water. If convulsions come on, cold should be applied. If asphyxia is present, flagellation, massage and artificial respiration are resorted to, and if the respiration depends upon the tetanic contraction of the respiratory muscles, inhalations of chloroform are employed. For the intense pallor it is well to give inhalations of nitrite of amyl. Should these means prove insufficient, it may be well to administer strong coffee or caffeine, or if swallowing is impossible, hypodermic injections of ether. The entire object of the treatment is to moderate the reflex excitability of the nervous system, to sustain the heart and to reëstablish the equilibrium of the circulation.—The Boston Medical and Surgical Journal.

## CURRENT LITERATURE.

Ne med 1 (05) 30: 56-58, #1, July 1892.

#### MEDICINE IN FICTION.

We laughed when Mark Twain proposed to deliver a course of lectures upon chemistry before the Royal Society, adding that he was "in a position to do this with greater freedom, because he knew nothing about the science," but the public do not laugh at but take in all seriousness the medical incidents and opinions scattered up and down the pages of the novels and poems which so commonly deal with medical matters. What with the medical books which everybody now-a-days feels it his duty to peruse, and the quack advertisements which force themselves upon his attention wherever he turns, it is impossible to avoid collecting a curious amount of medical information of a sort which is certain to find its way sconer or later from the end of the pen of the ready writer. This is perhaps not to be wondered at, considering how large a place ailments and modes of treatment occupy in our thoughts and interests. The freedom with which the novelist discusses these questions is of course due to the principle which led to Mark Twain's droll suggestion, though it is not acknowledged with such charming naïveté. As every man is expected to be a fool or a physician at 40, a novelist can hardly be blamed for assuming the latter character, and he usually does assume it with startling confidence.

One of the strange medical things in *Monte Cristo* is the way in which the old revolutionist, Noirtier, manages to live on paralysed in every part of his body except his eyelids, which he winks freely. Yet the old fellow reasons acutely, and finds no difficulty whatever in swallowing food or drink. Dumas seemed absolutely unaware that such paralytic condition as he describes in Noirtier's case involved of necessity brain damage of the most serious kind. Elsewhere Dumas made a guillotined head speak and weep. In one of his tales in the volume, *Les mille et un Fantômes*, there is a story of a man engaged in making experiments on heads fresh from the guillotine in the Reign of Terror. The doctor is shut up with a sack of fresh heads in a little mortuary chapel, when a voice from one of the heads calls him by his name—Albert. "It was the head

of Solange; I thought I was going mad. I cried three times, Solange, Solange, Solange! At the third time the eyes opened, looked at me, let two tears fall, and darting forth a dim light, as if the soul were escaping, they closed never to open more." Then there was Krook, the "Lord Chancellor," in Bleak House, who went off the earthly stage by spontaneous combustion. Dickens might well be excused for falling into an error which was at that time commonly believed in by the people who ought to know better. Bulwer Lytton went in for medical marvels in Zanomi, but as he was a student of mystic lore, and actually learned magne from a professed thaumaturgist, the Abbe Constant, his wonders were attributable not so much to his ignorance of medical science as to his belief in the elixir of life and the transmutation of metals.

In Called Back we have the blindness and subsequent cure of the hero, and the mental aberration and subsequent recovery of the heroine. There really was some medical knowledge displayed in both these "cases." The peculiar blanching of the heroine's skin after her shock was not at all badly conceived; her partial loss of contact with the outer world was not an ill-contrived symptom, though the facility with which she moved about, and posed like a sane person before her lover, quite lifted her case out of the region of the actual medical world as known to physicians.

It is not surprising that even George Eliot, with all her knowledge of the innermost workings of the human mind, should have lost her way when dealing with the morbid changes of mind and brain. Tito's father, Baldassare, had been a great scholar, but after a long illness his memory upon recovery became a perfect blank; he could recall nothing of his scholarship, though he had not forgotten who he was; with all this Baldassare is not represented as having lost his reason; he remembers his past life, but he can no longer read or write or recall any of his scholarship for which he had been so distinguished. It was not amnesia nor agraphia with which he was afflicted; it was a form of cerebral disease known only to the eminent novelist.

Wilkie Collins made a specialty of his medical knowledge, and it was upon this account that he was induced to undertake an anti-vivisection novel, which he published under the name of *Heart and Science*. The work was equally unsatisfactory both to the persons who inspired it and to the general public. The vivisector

may be clearly enough conceived in the novelist's mind, and if his laboratory were the only stage on which he acted the drama of life would be easily dealt with; but the vivesector in the ordinary relations of life—more especially as the family physician—is another character altogether, and cannot readily be made to fit the circumstances necessary to make a good sensational novel. Wilkie Collins's effort in this direction was a complete failure, and his medical men and his wonderful drugs could never have existed outside his own imagination.

In Dickens's Tale of Two Cities, where Sydney Carton substitutes himself for the condemned Evremonde, we have premonitions of the chloroform which was to be discovered 50 years later—the chloroform of popular imagination, however, and by no means the CHCl3 of the Pharmacopeia. The poets are, if possible, even worse offenders in the matter of their death-scenes than the novelists. A man pulls a 2-drachm phial of some poison from his breast, swallows the contents, proceeds to make a 200-line speech without a pang or a gasp, staggers gracefully backwards to a convenientlyplaced seat, drops upon it, clasps the region of the heart with both hands, and dies after a little convulsive movement of the legs. Another is run through the chest with a sword, he falls after some appropriate "business," but he usually raises himself to a sitting pesture and makes a speech full of the most beautiful sentiment, sighs deeply and dies. Heart disease, too, carries off heroines in a fashion quite unknown to doctors, and, although it is of the variety known as "broken-heart," has characteristics which must not be generally associated with fracture of so important an organ.

The matter has its serious aspects, for novels occupy an important position in the literature of the day, and form almost the sole mental pabulum of half the mothers of England, especially amongst the well-to-do classes.—Brit. Med. Jour.

RESORGIN IN GASTRIC ULCERS.—Pope uses resordin in a dose of five grains three times a day in cases of gastric ulcer. It is both antiseptic, analgesic and hæmostatic. Its analgesic property being the most valuable, enabling the stomach to tolerate food. He has also given it with advantage in gastric cancer.—Boston Medical and Surgical Journal.

#### NOSTRUMS FOR INEBRIATES.

We publish in another column a letter from the physician who claims the parentage of the "gold-cure" for drunkenness. This gentleman claims a somewhat smaller percentage of "cures" than do the proprietors of some other secret nostrums who go so far as to avow the principle of "no cure, no pay." The chief proprietor of the "gold cure" announces his intention at no distant time to appeal to the profession in what is considered "the proper manner." He has had a good many years to consider the advisability of doing so. The proper manner is to state what his "cure" is, and how it is to be used; but that might interfere with the operations of the syndicate, who, Dr. Kerr intimates, are asking the modest sum of £150,000 for their secrets. A long and melancholy experience of these secret cures should by this time have taught mankind how to estimate such claims at their true value. The antagonism of strychnine and belladonna to inebriate craving is no secret, and the profession have had the means of studying the limits of its usefulness. If Dr. Keeley has any other antagonism to disclose it will be to his credit not to delay taking the "proper means" of making its name and nature known. Thus far his methods are not those which an honourable profession can countenance. The very name given to the "cure" breeds suspicion, for experience of the double chloride of gold and sodium has not shown it to possess any such antagonism. Moreover, we are informed that in the report of the Committee on Nostrums, Proprietary Medicines and New Drugs, presented to the American Association for the Study and Cure of Inebriety, on December 4th, 1890, published in The Quarterly Journal of Inebriety, Hartford, Connecticut, U S. A., Dr. S. W. Abbott, Health Officer of the State Board of Health of Massachusetts, stated that the report of Dr. F. Davenport, the State Analyst, gave "the Keeley double chloride of gold cure" as showing no reaction indicating the presence of even a trace of gold. It is possible that this is not always so, for secret preparations are not always necessarily identical or uniform in composition. Thus the "cure" comes before the world tainted with a manifold suspicion from the mercenary and speculative character of the financial proposals which accompany its introduction into this country; from the concealment of the "menstruums" in which the chloride of

gold (if any) is suspended; from the discord between the published analyses and the market name of the nostrum so highly vaunted; and from the striking failures and deaths among the very "cures" heretofore most prominently boasted. The element of "secrecy," however, if not professional, may prove profitable to Dr. Keeley, as it has to Holloway, to Morrison and to other secret medicine vendors. Omne ignotum pro mirifico is a maxim of which the vendors of well-puffed proprietary nostrums have always had an affectionate estimation; and Carlyle's census of the fools encourages them to maintain it. Some men who ought to know better will, no doubt, be caught by the philanthropic verbiage with which the bargain is clothed.—Brit. Med. Jour.

HOT PACK IN FEVER.-Bremner (N. Y. Med. Jour., May 28th, 1892) describes a method of applying a hot pack which he has found very efficacious and convenient in the treatment of enteric fever. scarlet fever and measles, especially in children. A blanket just large enough to envelop the patient completely is folded lengthwise twice, and then rolled into a moderately tight roll. Two ounces of good soap are boiled until dissolved in two quarts of water, and this boiling solution is poured slowly into the centre of the roll, which is struck from time to time to facilitate thorough saturation. The blanket is then placed on a bed or on a part of the patient's bed prepared with a waterproof sheet covered by a dry blanket and rapidly unrolled. As soon as the blanket has become cool enough to be borne, the patient is wrapped up, with the arms enclosed, first in the wet and then in the dry blanket. The dry blanket, which should be double, must be carefully secured round the neck with a safety-pin, and well tucked in at the feet, to which a hot-water bottle may be applied if they tend to be cold. If the room is cold the whole may be covered with another blanket. A cold wet handkerchief or ice-bag is applied to the head. The pack is kept on for one or two hours, according to the temperature and the feelings of the patient. The effect is to reduce temperature, to remove de-lirium or coma, and to induce sleep. The pack should be repeated twice or thrice daily until the temperature remains permanently below 101° F. When removed from the pack the patient should be rubbed gently with a soft towel and replaced in ordinary bedding. The advantages of the method are said to be that it is more agreeable to the patient and to the friends than the cold pack, and reduces the temperature as effectually.—Brit. Med. Jour.

## CORRESPONDENCE.

## FORCIBLE RAPID DILATATION OF THE OS TO INDUCE LABOR.

Messrs, Editors North Carolina Medical Journal:

On the morning of June 29th I was called four miles into the country to see a woman who had been having convulsions since midnight. I arrived about half-past five o'clock, at which time she, a very heavy, plethoric woman, was having a convulsion every fifteen or twenty minutes. Term not expired by a week. Os just enough dilated to introduce one finger with ease—two by using force.

I at once ruptured the membranes, gave a hypodermic of onethird grain of morphia, elevated the hips by slipping a heavy pillow under the nates (and this is important), had the husband to give chloroform and proceeded to make *forcible* dilatation with my "Obstetrical Rapid Dilator."

Within an hour I was able to apply Barnes' Forceps, above the superior strait, and in an hour and a quarter I had delivered the mother of a healthy, living child, in good condition. The mother had several convulsions while the dilatation was being done, during which of course I withdrew the blades, and one after the child was delivered, since which time there has been no return, and at the last report I had of the case, dating two weeks from the time of delivery, both mother and child were doing well.

I believe that I could have done this dilatation in one-half the time had the emergency demanded it, but believing the vital powers of the woman sufficient to justify my disposition to conservatism, I operated with more deliberation and gave the encircling fibers of the os ample time to yield to the stimulus of the dilating blades.

H. S. Lотт, M.D.

Winston, N. C., July 14th, 1892.

<sup>&</sup>quot;The work of science is to substitute facts for appearances and demonstrations for impressions."—Ruskin.

## CURRENT NOTES.

The late Dr. D. Hayes Agnew left an estate of about \$250,000. He bequeaths to the University of Pennsylvania \$50,000, his work on surgery, his library and anatomical collections.—B. M. & S. J.

SIR WILLIAM AITKEN, the author of "Aitken's Practice," died in June. He was a very expert pathologist, and produced, without doubt, the best text-book of its day on the Practice of Medicine. Even now it has very few equals for the use of the medical student.

PARKE, DAVIS & Co. have sent a handsome souvenir of the late meeting of the American Medical Association, showing the great extent of their laboratories, offices, warehouses, etc., etc. This great firm have won success step by step, and may well be proud of it. The book is oblong, beautifully printed and illustrated.

TINCTURE OF GELSEMIUM has a high value in the treatment of chronic cystitis. Combined either with benzoate soda or alone, in proportions 3 ij to 3 iij to 3 vj water. Warm and inject about an onnee into the bladder morning and night comes as near giving relief as any remedy we have tried. This is nothing but the endorsement of an old remedy.

CHOLERA has been reported from Russia and France in the daily papers, and it is in order to renew vigilance to prevent the introduction of the disease into the United States. The Inter-State Notification agreed upon by the Conference of State Boards of Health on this Continent will serve a very practical purpose in the control of it should it reach America.

Valuable Papers on Pharmaceutical Subjects:—Spirits Aetheris Nitrosi; General Results of Analysis, Volumetric Analysis, Nitrometric Methods—all by Dr. Charles O. Curtman. Qualitative Examination of Baking Powders, by Claude C. Hamilton, M.D., Ph.G.; Practical Pharmaceutical Notes, by Francis Hemon, Ph.G.; Applied Pharmacy, by Wm. Mittlebach; Pilulæ Catharticæ Compositæ, and Sensitive Iodine Preparations, by G. H. Chas. Klie. These papers were courteously sent in advance to the members of the Committee of the Revision of the Pharmacopæia for 1890, by the Mo. Pharm. Association. The senior expresses his thanks.

Women Physicians.—Dr. S. Weir Mitchell, in his recent novel, Characteristics, says: "I did not believe it was best, either for the sick or for society, for women to be doctors; that, personally, women lose something of the natural charm of their sex in giving themselves either to this or to the other avocations until now in sole possession of man." Women doctors "fail to realize what they have lost. The man who is sensitive to womanly ways sees it. It is worse than nursing the sick, for even nursing makes some women hard."—N. Y. Medical Journal.

Perforation of the Uterus Ry the Curette.—Lannelongue (Arch. de Tocol. et de Gynec., May, 1892) employed the curette for a woman, aged 64, a 4-para. The patient had total prolapse, with metritis. After dilatation the irrigating curette was used; it seemed to pass indefinitely far without resistance, and the injected fluid did not return. As perforation was evident, vaginal hysterectomy was at once performed. The uterus was very flabby, and had been perforated at the augle between the body and the neck. The patient recovered. In a second case the patient was 31, also a 4-para. She had endometritis and slight salpingo-ovaritis. There was eystocele, rectocele and ruptured perineum. After dilatation the irrigating curette was used. In scraping the right cornu it was noticed that the injected fluid ceased to return, yet the instrument did not seem to have passed beyond the uterine cavity. As the patient was young and perforation not absolutely certain, the uterus was not removed. The cavity was swabbed, the cervix, much hypertrophied, was amputated and colpoperineorrhaphy performed. By the second day the abdomen became distended; next day stomatitis set in and poisoning by sublimate was suspected; on the tenth day diarrhea occurred with albuminuria. On the nineteenth day erysipelatous patches appeared on the forehead, and the patient died; a soft, solid tumour had developed in the abdomen. The enlarged, flabby uterus was found full of pus, and there was purulent peritonitis as well. The perforation in the right cornu was distinct. Lannelongue believes that when the uterus is perforated by the curette before the scraping has begun, the uterus must be amputated, as the danger of septic peritonitis from fragments of diseased endometrium is great. If the curette does not pierce the uterus till the process has nearly finished, the uterus may be saved, especially if the patient be young.—Brit. Med. Jour.

A RHODE ISLAND LAW FOR THE PREVENTION OF BLINDNESS.—A law has recently been passed in Rhode Island similar to those in New York and Maine, part of which is as follows: "Should any midwife or nurse, or person acting as nurse, having charge of an infant in this State, notice that one or both eyes of such infant are inflamed or reddened at any time within two weeks after its birth, it shall be the duty of such midwife or nurse, or person acting as nurse, so having charge of such infant, to report the fact in writing within six hours to the health officer, or some qualified practitioner of medicine, of the city or town in which the parents of the infant reside,"—Boston Med. and Surg. Jour.

#### READING NOTICES.

Happy and content is a home with "The Rochester;" a lamp with the light of the morning. For catalogue, write Rochester Lamp Co. New York.

Surgical Dressings.—The respective advantages of dry and moist dressings have received much attention of late. A point was made concerning dry dressings which did much to decide operators in their favor. We refer to the quality possessed by some of them of adhering closely to exposed surfaces, thus making an impervious, antiseptic covering, beneath which the reparative processes may uninterruptedly take place. This adhering property is observed in a marked degree in Europhen, which has attained a high reputation as a cicatrisant. Europhen, too, is a bulky powder which may be spread to advantage over large denuded surfaces in cases in which it would be dangerous to employ iodoform. The antiseptic and stimulating properties of Europhen have, no doubt, contributed greatly to its success, for its cresolic component promptly shows a characteristic action. The iodine contained in Europhen goes off slowly, thus preventing the toxic action so often recognized in preparations of iodoform, and making frequent dressing unnecessary, while its solubility in the liquified products of inflammation add to its effectiveness as well as its safety. In the lesions of syphilis, in ulcerated surfaces, burns and all traumatisms, this new dressing has done admirable work. Europhen has undoubted advantages over iodoform in being free from disagreeable odor or toxic influences; but it must possess sterling qualities as a dressing quite apart from these characteristics, for it is already widely used by surgeons, though quite new to modern surgical therapeutics.

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THOMAS F. WOOD, M. D, GEO. GILLETT THOMAS, M. D.,

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# NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M.D.,
GEO. GILLETT THOMAS, M.D.,

Number 2. Wilmington, August, 1892.

Vol. 30.

### ORIGINAL COMMUNICATIONS.

### BIOGRAPHICAL.

CALEB WINSLOW, M.D.

Caleb Winslow, M.D., the sole surviving member of the original Board of Medical Examiners of the State of North Carolina, was born in Perquimans county, North Carolina, on January 24th, 1824. His parents were Nathan and Margaret Fitz Randolph Winslow, who resided near Belvidere, Perquimans county, a settlement of Quakers, to which denomination they belonged.

The boyhood-of Dr. Winslow was passed upon his father's plantation, where he acquired that knowledge of farming and love for animals and outdoor life which has been one of his characteristic features ever since. He attended the best schools which the neighborhood afforded until he was 16 years of age, when he was sent to Haveford College, Pennsylvania. After graduating at this institution he returned home, and for a time engaged in teaching school

and in surveying. It was during this time that his future calling was determined as the result of an accident. Having fractured his clavicle, his attention was directed to the study of medicine, and he accordingly entered the University of Pennsylvania and graduated in 1849. Returning to North Carolina, he settled in the town of Hertford, Perquimans county, where he soon acquired an enormous practice. He soon became widely known as a skillful surgeon, and grave surgical cases in large numbers came to him from far and near. In the operation of lithotomy he became especially expert, and his record of 99 operations with but one death, was for a long time the best in the world. This is the more remarkable when we remember that his field of labor was in the country, with imperfect appliances for successful work, and often with very insufficient and unskilled assistants. In other branches of surgery his results were also extremely successful.

It was no uncommon thing for him to be waylaid and unexpectedly required to perform various surgical operations. Upon one such occasion he was surprised to find a party under a tree by the road-side, waiting for him to pass that way. The patient had been transported some distance and brought to that place to have an amputation of the leg performed. With the woods for an amphitheatre and the heavens for a canopy, the operation was successfully performed, and all parties to the transaction went on their way rejoicing.

Dr. Winslow many years ago anticipated the modern operation of trephining the skull for traumatic epilepsy. Having been called to a man who suffered from epileptic seizures, which were attributed to an injury to the head, he removed a button of bone at the seat of injury and cured the patient.

At the close of the civil war he removed to Baltimore, Maryland, where he still sides. Finding the surgical field occupied by such men as Nathau R. Smith and Christopher Johnston, he devoted his energies to the acquisition of a general practice, and in a short time was in great demand as a family physician. He enjoyed the confidence of the public to a remarkable degree in the department of obstetrics, and in one year attended \$66 women in labor—actually more than one case for each day of the year. After more than forty years of ardnous toil, he has now retired from the practice of his profession.

With a vast and varied clinical experience and a mind exceptionally stored with useful information, it is much to be regretted that the subject of this sketch found so little time and inclination for contributing to the literature of the profession. Shrinking from publicity of every kind, he devoted himself untiringly to the practice of medicine, seeking to do that which was right rather than by any equivocal means to gain the attention of the people.

Dr. Winslow became a member of the Medical Society of North Carolina at the session held in Edenton in 1857. He was an active supporter of the Medical Journal of North Colona,\* and contributed to its pages at an entry date.

He was chosen in 1859 to be a member of the first Board of Medical Examiners. We have before us some pencil notes, written at the time by Dr. Winslow, relative to this meeting.

"This Board of Medical Examiners met in Raleigh on the 6th inst. [May, 1859] and organized by electing Dr. James H. Dickson of Wilmington, President, and Dr. Iredell† Secretary. With a view to a more thorough preparation and efficiency, special branches of medical science were assigned to each member of the Board, to wit: Physiology and Medical Hygiene, to Dr. James H. Dickson; Obstetries, to Dr. Charles E. Johnston; Materia Medica and Therapeutics, to Dr. W. H. McKee; Surgery, to Dr. Caleb Winslow; Chemistry and Pharmacy, to Dr. C. Happoldt; Practice of Medicine, to Dr. Otis F. Manson, and Anatomy, to Dr. J. G. Tull."

Dr. Winslow's estimate of the then new movement in North Carolina, as contained in this paper, in the light of succeeding years, was just and to the point.

"It was the object of the Legislature," he writes, "in the appointment of this Board, to put a check to medical ignorance, whether it come in the shape of quackery, or recommended by a diploma never earned. The facility with which many medical schools grant diplomas renders it still more necessary that our State should protect her citizens from the horde licensed to kill."

<sup>\*</sup>The first series began in 1858 under the editorial management of Dr. Edward Warren, then of Edenton.

<sup>†</sup>Dr. Iredell'was not a member of the Board, but chosen as Secretary from without, as was the custom until later.

### HYPERTROPHY OF THE LYMPHATIC GLANDS OF THE PHARYNX AND NASO-PHARYNX

By C. P. Ambler, M.D., Asheville, N. C.)

(Read before the Buncombe County Medical Society, May 2, 1892.)

The lymphatic glands of the pharynx and naso-pharynx are probably more often the seat of some pathological change than any other group in the body.

That this should be true does not seem at all strange when we think of the predisposing causes to which they are constantly exposed.

The lower animals have glands corresponding to those we refer to, but in these we never find the glands in a state of hypertrophy.

No doubt our habit of eating hot and cold foods alternately plays an important part in the cause of the enlargement. How frequently we see boiling hot coffee served with ice-cream, but we never think at the time of the influence such extremes have over the circulation of a part.

If we dressed at all times and seasons with a rational idea of what dress is for, not protecting a part well at one time and exposing it the next, but always with an idea to regulate radiation from the body, to keep it about the same at any point, always avoiding the sudden, rapid radiation from a part where usually it is only moderate, we might, in a measure, be as fortunate as the lower animal. Just why any one group of glands should be selected as the seat of the change we do not know, but it is fair to presume that the same cause which produces a cold at a given point may be at work here.

Bosworth states that heredity seems to have considerable influence, he having observed, for instance, hypertrophied pharyngeal tonsils in several children of the same family where the father or mother had the same trouble. We might ask if some error in the mode of living in the parents might not have caused their trouble, and the child following their footsteps developed the same.

The glands of the pharynx and naso-pharynx are arranged so they form a complete circle, the position of the ring being almost vertical. "Beginning above with the pharyngeal or Luschka's tonsil, it extends to the orifice of the Eustachian tubes, where are situated a large aggregation of follicles, the tubal tonsil. Turning downward along the posterior edge of the soft palate, and around the posterior pillar, it reaches the facial tonsil and returns across the base of the tongue in a similar manner, to the naso pharynx." We say glands, but this is a misnomer; none of these bodies have either ducts or outlets, and hence are not, strictly speaking, glands,

The most important aggregation of follicles are the facial, pharyngeal and lingual. So much has been said in regard to the facial tonsils, and they are so easily inspected and operated upon, that we shall not take them up to-night, but confine our remarks to the pharyngeal and lingual. We might say, though, that what holds true in regard to hamorrhage from the facial does not in the others. They sometimes bleed freely for a few moments, but never as persistently as in the case of the denser facial. Of the whole group, the pharyngeal is the most difficult of inspection and access.

A rhinoscopical examination is the best means of diagnosis, but where this fails or is unsatisfactory, a digital examination made, and the soft, flabby structures once felt, one will always be able to satisfy himself whether present or not.

Bosworth gives an easy and effectual method of diagnosis. He throws an albolene spray into the nares, and if it freely finds an exit on the opposite side in a cloud, as it comes from the atomizer, he is certain he has no obstruction in the naso-pharyux. On the other hand, if the obstruction is considerable, but not enough to cause stenosis, the greater part of the spray will find its way into the throat, and only a little will appear from the nares. This might be conclusive if we were certain that we had no deflections, and that the anterior nares were equally free.

The gland is situated high up in the median line on the posterior wall of the naso-pharynx. The degree of enlargement is varied. The cases usually do not come to us before it has reached a point where the respiration is interfered with.

A peculiarity of the gland is that it may be quite large one day, and not more than half as much the next. The surface may be smooth, or the enlargement may be of the class called by Mayer, "Adenoid Vegetations." The symptoms in a measure correspond with those of hypertrophic rhinitis, but it is well to remember that hypertrophic rhinitis is a disease not often found in childhood, while hypertrophy of the pharyngeal tonsil is a disease of childhood proper. If left alone and allowed to run its course, the enlarge-

ment will generally disappear about the age of puberty, but the conditions set up have by this time become worse than the original trouble itself. Congenital cases have been reported, but rarely do cases occur before the age of three.

Persistent nasal catarrh is almost a constant symptom, but cases have been reported where there had never been any discharge, although the trouble was well advanced. The discharge is usually a thick, white, viscid mucus, being blown from the anterior nares. As soon as the respiration becomes restricted the more apparent symptoms quickly result. Mouth-breathing, with all its evil effects, from the idiotic expression to deformity of the chest, may follow, if the case is severe and long-continued.

Different writers put the per cent. of ear complications from 15 to 60 of the cases; this occurs not alone from pressure upon the Eustachian tube, but also because the air in the middle ear is not changed as frequently and readily as should be. Swinburn states that "in 179 cases of middle-ear disease 27 had adenoid vegetations."

As before stated, the results of nasal stenosis are as varied as the cases have numbers. The influence upon the voice is one of the most interesting. The voice being what Mayer calls "The Dead Voice," "m" and "n" become "eb" and "ed". The voice loses its nasal resonance, cannot be educated for singing or clearly speaking, and if the case is allowed to make a "spontaneous cure" at puberty, the voice never recovers from the restriction and hindrance experienced during the developing age.

When the enlargement is not so great as to obstruct the nasal passages but only moderate, the voice may be normal in the lower register, but upon attempting a higher note in singing, will fail entirely. This is simply explained by the fact that in the lower or "chest notes" the nasal chambers are not used, but for the higher, free nasal chambers are essential.

The prognosis is good, even if ear complications are already appearing, provided the treatment is radical enough. There are cases where radical treatment cannot be employed, but wherever we are compelled to resort to sprays and mild applications, the case does not progress favorably.

The practice of making applications to the whole pharyngeal vault with a bent probe wrapped with cotton, saturated in silver or iodine solutions, can only be condemned, as the continued applica-

tions necessary will only set up troubles, which are as much to be avoided as the original

The applications and operations should be confined to the hypertrophied tissue itself, and if this cannot be made with some certainty, the case is better let alone. We occasionally find a patient who can keep the palate relaxed and allow us to make our examinations and applications without any trouble. Such cases are the creat exception, especially in children where most of the work must be done. If the child is young and cannot be controlled, the operative procedure by curettement, under ether, is the best. Bleeding is sometimes profuse, but it will stop spontaneously in a moment. We need not fear the kind of hemorrhage we get in the more dense facial tonsil, as the connective tissue never developes here as in the facials, and we never have the calcareous deposit.

The treatment will never be thoroughly done if the palate is not perfectly controlled, and I have never seen any good accomplished with palate retractors. They are not well tolerated, slip easily, are in the way and do not accomplish their object. Tying up the palate is much to be preferred, is more effective and causes no inconvenience to the patient. The nares are first sprayed with a 2 per cent. solution cocaine, a small smooth ribbon is inserted into the eye of a fine, soft catheter, just enough to hold it, both are covered with vaseline, and catheter, with ribbon attached, passed through the nares downward and backward. The catheter and ribbon appearing in the pharynx, the ribbon is seized with forceps, drawn from the catheter, catheter removed and the two ends of the ribbon tied together. Both sides are treated the same way, and we then know there will be no danger from contraction of the palate. The locality to be operated upon is now painted over with a 10 per cent, solution cocaine. If the sharp curette is used, one sitting is all that will be necessary, but with electrolysis, two, three, and sometimes four, will be necessary. The electrode can be introduced either post-nasal or through the anterior nares, the platinum point pressed against the most prominent part and the current turned on. The point is allowed to bury itself according to the size of the enlargement; this is repeated two or three times, and if the condition is such as to warrant it, a deep furrow may be burned through the mass, remembering all the time that we are working in close proximity to the base of the brain; and we must be careful as to the amount of 72

reaction caused. The current must not be turned off until the electrode is being removed from the surface, otherwise it will firmly adhere, and when pulled away hamorrhage will follow. This, however, holds true in all cautery applications.

Again, care must be used not to overheat a platinum point in the nares, when the point is not in contact with the membrane, or we will have following our operation a diffused inflammation extending throughout the cavity.

The lingual tonsil is situated between the epiglottis and the papilla of the tongue; these follicles were for a long time thought to be enlarged papilla. The follicles can rarely be demonstrated before puberty; the enlargement is slow and gradual, the patient not being aware of it. When enlarged they can sometimes be seen by direct inspection or felt by digital examination, but the laryngeal mirror is always to be preferred. Anatomically they resemble the pharyngeal tonsil, the surface being nodular and the fissures not becoming obliterated as the case progresses.

The symptoms are more numerous and misleading than occurs in hypertrophy of any other of the group. Among the most common symptoms are:

- 1. Sensation of some foreign body in the throat.
- 2. Constant desire to swallow—constituting the so-called "empty swallowing."
  - 3. Difficulty of speech.
  - 4. Interference with deglutition.
  - 5. Catarrh.
  - 6. Inability to produce high, clear notes.
  - 7. Cough.
  - 8. Asthmatic attacks.

The first is a most constant and annoying symptom. The sensation is not experienced while eating, but the constant feeling that "something has lodged there" is often a factor in bringing the patient to the physician. If the gland is considerably enlarged and interferes with the free motion of, or encroaches upon the epiglotis, deglutition will be interfered with, and the voice sooner or later altered; pain and feeling of pressure will also be complained of. The changes in the voice result from mechanical obstruction, and the interference with the free movement of the muscles of the tongue and larynx. The cough is short, sharp and spasmodic, this

being purely reflex and entirely different from the cough, which expels a collection of mucous from the larynx. The discharge is a thick, tenacious, semi-transparent, gelatinous-looking mass.

Treatment does not vary from that mentioned in other glands, except that the galvanic cautery is given the preference in a larger number of cases.

### EFFECTS OF ALCOHOL ON THE SYSTEM.

C. M. POOLE, M.D., Craven, N. C.

(Read before the Rowan County Medical Society, July 4th, 1892.)

So much has been written and dilated upon by modern writers and lecturers on the effects of alcohol, that it would seem we should by this time fully understand the history of its voyage through the human system and the influence it exerts over the tissues of the body.

It would seem almost a satire upon civilization to speak of the injurious effects produced by it when it is remembered that, next to water, it is used more than any other fluid by immense numbers of envilized people. It is the physician, however, who is called upon to treat the diseases thus produced in the human economy, and it is, therefore, his duty to speak plainly on this subject, and show to the world the ravages of this fell destroyer when used to excess.

When the physician attempts to study the action of alcohol on the system, especially when he calls to his aid the study of physiological laws, he finds that it supplies no new matter, and that it supplies but little or no force to living matter. He finds, too, a long list of diseases whose origin depend entirely upon the inordinate use of alcohol.

Nor does he only find that physical disease and physical death are caused by it, but in many cases mental disease and mental death are the result. Ethylic alcohol is the basis of all intoxicating drinks, and it is by a study of its physiological action on the system that we approach most closely to the diseases originating from its use. It is an intoxicant of chemical composition  $C_2H_6O$ , and when used to excess is capable of inducing the most systematic and appalling phenomena of disease.

#### FIRST STAGE.

Alcohol may be administered in different ways. It may be introduced by the stomach, by subcutaneous injection, per rectum and by inhalation of vapor. The effects produced on the functions are the same, no matter by what mode administered. It is said that 30 grains of alcohol to the pound weight of the animal body will produce intoxication, while double that amount is productive of immediate danger. Increased action of the heart is the first symptom produced. Observation has shown that the heart's action is increased from fifteen to seventeen beats per minute. The period of rest between beats is shortened, though not as much so as might be inferred, for the contractions are sooner over. When alcohol has been taken continuously for a time and then suddenly discontinued, the heart will be very feeble. It is, therefore, not surprising that the brain and muscles, which depend upon the heart for their blood-supply, should be languid and require the rest of long sleep for renovation. At first the vital functions strive mightily to maintain this normal condition, but if the strain is kept up, sooner or later they, too, will flag, the result of which is a complete physical wreck. While the heart is laboring under the influence of the alcoholic stimulus the peripheral circulation is quickened and there is an observable change in shades of color in exposed parts. It might be supposed that these changes only occur in parts exposed to view, but, on the contrary, they are alike throughout the whole body. The blood-vessels of the brain, lungs, kidneys, and all vascular organs, are alike injected and the parts engorged.

The changes in color, which are only temporary in the novitiate, become confirmed and permanent if the alcohol be continued for a long time.

The bloom on the nose is the mark by which the confirmed toper may be recognized. We have said that the first effect of alcohol is to increase the action of the heart. Physiological research has served to explain why this is so and why the minute blood-vessels are so much injected. Instead of acting directly upon the heart and causing increased motion and power of that organ, there is simply paralysis of the organic nervous supply of the vessels which constitute the minute vascular structures. This being the case, there is less resistance offered, and the heart, being thus liberated.

quickens in action, dilating the paralyzed vessels, causing injection and engorgement of the same. These phenomena constitute the first action of alcohol on the system, and might well be termed the stage of excitement.

### SECOND STAGE.

When the effects of alcohol are carried beyond the first stage other changes are induced in the nervous system, more especially in the cerebro-spinal system. It is impossible to say at present whether these changes are due to the direct action of alcohol upon the nervous matter, or whether it is simply due to the modification of the circulation in these parts. Be this as it may, we do know that there is a deficiency in the power of coördination of muscular movement. This is caused by a loss of nervous control over the muscles. If the battery be applied at this stage the response will be feeble, and, the more fully the system is brought under the influence of alcohol, the less will be the response to the galvanic stimulus. These symptoms mark the effect of alcohol on the system in the second stage.

#### THIRD STAGE.

Next in order the upper portions of the brain become implicated. These being the centres of thought, the mird soon loses its equilibrium and the man is no longer rational. At this stage we frequently find these persons extremely passionate and emotional, the animal instincts showing up very conspicuously. At last there is failure of the senses-insensibility, sleep and utter muscular prostration and relaxation. If examined at this stage, there will be found a very decided decline in the temperature of the body which is said to have fallen as low as  $93\frac{1}{2}^{\circ}$  F. It might be supposed that the decline has just taken place at this stage, but, on the contrary, it has been going on through all the three stages of intoxication. It is true that in the first stage there is increased heat where there is increased peripheral distribution of blood and increased radiation, but while this is going on there is a decline in the temperature of the mass of the body. This decline goes on from hour to hour until it brings us down to the

#### FOURTH STAGE.

This stage is marked by extreme collapse of the muscular organs

under the control of the volitional nervous centres. While in this condition there are observed at times strange automatic movements of the limbs which seem not to be controlled by any of the centres of volition, nor are they produced by any external stimulus. They are simply strange involuntary movements, which show that there is still some life in the spinal cord. The centres that supply the muscles of respiration and circulation seem to remain faithful to duty longer than any others, and when the end is death, it has been observed that of these the muscles of respiration fail first, the heart being the last to give way. Upon the slowness of action on these two centres lies the safety of the patient in administering large doses of alcohol. Were the action of alcohol uniform on the body or on the nervous centres, it would be extremely dangerous for any one to take it to the degree of intoxication. When the intoxicated live through the fourth stage the temperature may fall even lower than stated above, but, after diffusing through all the tissues, the alcohol escapes by elimination, slowly relieving the living centres, the result of which is a gradual return of power. This, then, brings us to the end of the symptoms observed in intoxication.

We might state, however, that alcohol, when taken in excess of the natural demands of the system, tends to overtax the oxygenating capacity and prevents complete oxidation of the proteids, which weakens the vital forces and develops diseased conditions. It is not per se a poison, but by preventing transformation of the proteids nutrition is much impaired. Its continued use has a very deleterious effect upon the blood vessels constituting the minute circulation and upon the blood itself, especially the red corpuscles. Microscopical research has shown that they become irregular in form—that they shrink and are notched at their margins. It has shown, also, that there is an excess of fatty globules and that oxygen is absorbed with much less freedom.

Alcohol also acts injuriously upon the membranes of the body. Cases frequently occur in the experience of every physician where the skin, the peritoneum, the periosteum, the conjunctiva have taken on diseased action entirely due to the abuse of alcohol. The different membranes of the body all have their respective functions to perform. Anatomists centuries ago held that their offices were simply to hold the different parts of the body in their natural and respective positions and to give mechanical support. It is known,

however, that this is only a part of their office, that they are really the natural filterers of the body, that they guard the ingestion and assimilation and elimination of all substances whatever. Now, when, from the inordicate use of alcohol, the mechanism of these membranes is interfered with, it will necessarily follow that the process of filteration will be inequately performed. This being the case, the proper nourishment of the part will be impeded. The nourishment of the body depends entirely upon these membranes in their integrity. In some cases, from the continued use of alcohol. they are rendered so porous and relaxed as to allow the colloidal fluids of the blood to escape. The result is, the body slowly, but surely, dies. In other cases the membranes become thickened and loaded with foreign matter. The natural fluids then fail to pass through them; the result is, in some instances there is accumulation of fluid in closed cavities, while in others there is a dryness between membranes and substances inclosed where there should be free Inbrication. There may be hypertrophy or atrophy, or, if there be no change in mechanism, there may be inactivity from anæsthesia. Either of these would interfere with their natural functional power.

Dr. Tuckerman claims that the cell metamorphosis is hindered, that the nutrition is impaired, and, as a result, the function of the cell is lessened. Investigations reveal the fact that alcohol induces a distinct change in the contents of the nerve cell. This is reasonably the retention of effete matter whose elimination is hindered

When we consider the functions of brain cells, especially of the anterior lobes of the cerebrum, controlling the passions, instincts and appetites. Defects in this function mark the loss of self-control, and in so far as they exist constitute mental alienation. The clinical aspect of a case of chronic alcoholism presents the results of this defective inhibition in numerous ways. The energy or reserve force of the cells is exhausted or hindered till continued mental effort is greatly weakened.

Dr. Waugh says the victim of chronic alcoholism is in such a state of physical and mental weakness as to be illy able to withstand the onslaught of any disease. He is usually a man having the appearance of robust health, but a careful scrutiny will reveal this to be a delusion and a snare. His bloated and rubicund visage, his ponderous abdomen and his full but soft fleshy parts, are no more the indication of strength and vigor than is the padding of a

Punch and Judy character. His digestive apparatus is in a state of chronic irritation, and it has for so long a time been accustomed to excessive stimulation that it no longer responds to ordinary irritation, and in the case of disease refuses longer to receive food, or even the fiery draughts which have been the patient's ruin. It is not difficult, therefore, to see why the most systematic phenomena of disease are invited. The power of resistance in all parts of the body is very much reduced, and when the toper is attacked with disease his chances of recovery are correspondingly reduced.

ACID NITRATE OF BISMUTH IN GLYCERINE is a specific in microbic skin diseases.— Curtman.

FIVE CHILDREN A LARGE NUMBER IN A FAMILY,-Dr. Skene notes in his magnificent work on Diseases of Women that five children in a family in the United States is considered a large number. His work will be read everywhere, and we would just like to add some information which the gifted professor could not possibly have obtained except by a visit to the South can count many families of his own acquaintance in which there are from 7 to 12 children. In one family there was celebrated a birth-day for every month in the year, in two months there was a double celebration, there being 14 children and not enough months to go around. At the rate of 5 children to the family we would be a very long time making good our losses in the war; as it is we are making rapid strides. Our streets and public places, sea-side resorts, and wherever you may go, the merry voices of throngs of children greet the ear. Nothing is more evident to the stranger who comes in our midst than that the Malthusian doctrine has not penetrated the depths of our pine forests Sterility to Southern women is the same grievous misfortune that it was to the Jewish wives of old. The writer has never had more than one or two appeals made to him to procure an abortion, and one of these was from a resident of a higher latitude.

### REPORT OF THE CHAIRMAN ON GYNECOLOGY.

By M. H. Fletcher, M.D., Asheville, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

The advances in gynecology during the past year have been few and mainly toward conservatism. When so eminent an authority as Dr. Thomas, in his recent edition (1891) on "Diseases of Women," (page 491), speaking of the advisability of evacuating pus or serum, says: "If, in spite of the sero-purulent collection, the patient be doing well and does not suffer from the local trouble, it should be left to empty itself spontaneously." If Dr Thomas can advise such a course, we may well use the word conservative without feeling any sense of reproach.

Considerable discussion has taken place recently in regard to draining the uterus and as to which is the better method, although it has not been exactly in the line of progress, because Wylie has for ten years been teaching the value of divulsion, curetting if necessary, and draining by means of a hard rubber grooved bent tube, with bulb on the end to hold the instrument in place for the cure of endometritis.

Polk and others have revived interest in this line of treatment by advocating packing with iodoform gauze after divulsion and curetting, and even go so far as to advise curetting where, in addition to the endometritis, we have salpingitis and cellulitis—certainly a very dangerous procedure, when we are taught, and it is an established principle in gynecology, that it is a dangerous practice to pass a sound even, where we have a cellulitis. Twice in my own practice I have lit up a new latent trouble of this kind by passing a sound, once resulting in general peritonitis and death. While the principle in the treatment is not new, the revival of interest in, and the frequent discussion of, a method which has so much to recommend it, will result in good, especially so because the treatment is so far superior to the methods that are usually practiced in these

In regard as to which is the better method of draining the uterus,

the rubber stem, in my judgment, has a decided advantage over the method of packing with iodoform gauze because it is more cleanly, easier applied, and does not require to be changed so often.

The routine of gynecological treatment such as the applications of iodine, iodized phenol, etc., is being discontinued, much to the relief of the patron, the patient and the doctor.

The advantages of position of the patient in the treatment of pelvic congestions as well as the Trendelenburg posture during suprapulic operations within the pelvis, has attracted some attention. We have all been taught to take advantage of position by elevating the nates and lowering the shoulders, while giving hot douches for the purpose of clearing up pelvic exudates, and knew of the advantages of rest and the recumbent position to relieve dilatation of the pelvic veins; but it remained for Emmett to suggest the value of further relieving the venous dilatation and increasing the return flow of blood by simply raising the foot of the bed 15 to 18 inches.

The Trendelenburg posture consists in raising the pelvis so that the symphysis forms the highest point and the body comes on an incline of at least 45° to the horizontal. The viscera of the abdominal cavity will gravitate towards the diaphragm and the pelvis will become free and easy of access. The small intestines will hardly come into view and will not trouble the operator during the operation. The operator can see and secure the bleeding points more easily. The posture is claimed to be of great advantage to weak and anæmic patients, preventing shock from acute anæmia of the brain. Chloroform seems to be the preferable anæsthetic to use owing to the fact that ether tends to congest the brain, which is already low. To secure this position it is necessary to procure a chair or table adapted to its use, by means of which we cange the position during the operation if necessary. It is especially desirable to change the position during irrigation in order to prevent the irrigating fluid from flowing toward the diaphragm.

Abdominal and vaginal hysterectomies have been performed a number of times during the year with a reduction of mortality, owing to greater skill acquired by the operators and to improvement in the technique of operations.

The advocates of abdominal hysterectomy urge the operation chiefly for fibroma, fibro-myoma and puerperal peritonitis. There

are still differences of opinion as to whether the stump should be treated by the intra-peritoneal, the extra-peritoneal method, or should be extirpated. To one who is a little acquainted with operations of this kind there is much that we cannot satisfy our minds about. One man of eminent authority will make a plea for "early hysterectomy and puerperal hysterectomy," and says: "We are rapidly advancing to accept early operation as a dictum in pelvic and abdominal surgery. I can find no delight in so-called conservative methods. My experience disproves and condemns them. It will become an axiom in surgery not to delay longer than to establish the fact that operation will be necessary at some time. To establish this latter fact is the question which troubles us. How can one satisfy himself that for a fibroma it will become necessary to perform hysterectomy some time during the patient's life, or that it will become necessary to remove a septic uterus." On the other hand, an authority equally as eminent will say: "Too many needless mutilations; not enough conservative gynecology. This is an age in which unscrupulous and unreasoning operative boldness, more or less helped out by antisepsis, too often takes the place of true surgical knowledge."

Vaginal hysterectomy for cancer of the uterus has more to recommend it than the suprapubic operation. We can be reasonably sure of a diagnosis; it is easier performed. The death-rate from the immediate effects of the operation is almost nil in the hands of some operators. There are some who still advocate high amputation of the cervix. The concensus of opinion now, however, is decidedly in favor of removing the whole organ whenever the diagnosis of malignant disease is clear. It is very little more dangerous than high amputation, and it affords greater immunity from relapse. In malignant disease of the body of the uterus total extirpation is the only means of relief, and should be performed as soon as the diagnosis is made and confirmed by the microscope. It is futile to operate if the disease has invaded the broad ligaments and extended beyond a point where ligatures can be applied; we must, however, recognize a difference between cancerons and inflammatory infiltrations of the broad ligaments The operation should also be avoided where the cancerous affection has involved the vagina or tissues about the rectum and bladder to any considerable xtent. There is still some controversy as to which is safer, the ligature or clamp, but I notice that most of those who advocated the clamp a year ago now use the ligature.

It has been in tubal and ovarian diseases that conservative surgery has made its greatest gains. Fewer tubes and ovaries are being removed. The slightly cystic ovary has been spared; at least reports of the operations have failed to find their way into the journals.

For the relief of reflex, nervous and mental derangements Battey's operation has lost its hold on the profession. The ultimate results recorded from the operation do not justify it. A large number of observers fail to ascestain results after a lapse of several years. For the cure of dysmenorrhea, neurasthenia and hemicrania, no matter how closely these troubles may be connected with the menstrual function, the removal of the ovaries is not justifiable. For follicular ovaritis, catarrhal salpingitis and for pelvic salpingitis, the subject will bear a little investigation. For hystero-epilepsy, where the attack occurs at or about the menstrual period, and by thorough examination we are able to detect diseased ovaries, the patient's mind does not become affected, and we are reasonably sure that the disease is dependent on the function of ovulation and menstruation, the operation is justifiable and should be performed.

Brodwitz, from a thorough study of the ultimate results of castration, arrives at the conclusion that in cases of general neurosis (hystero-epilepsy and epilepsy) the ovaries simply share in the central trouble, and hence castration cannot be expected to give permanent relief; moreover, subsequent indurations and adhesions may increase the original irritation. The ordinary sequelæ of castration are molimina, congestions, cardiac disturbances, flushing and vertigo, together with a diminution of the sexual feelings in about two-thirds of the cases. Melancholy and forgetfulness are quite common, which may culminate in more pronounced psychoses.

Doléris believes that about eight-tenths of the women operated on have submitted needlessly to mutilation, which, according to his figuring, would give a result of four thousand women in Paris deprived of their ovaries or uteri without a sufficient cause.

Dr. Byron Robinson, of Chicago, puts the whole subject in a nut-shell. He says: "The test for ovariotomy should be pathology. Let every ovary removed be submitted to a competent pathologist, and soon there will arise a more decided standard. Let the patho-

logist be the man to give advice to the extreme laparotomist and the slow conservatist. We generally remove organs for some pathological cause. I fail to see why the ovary does not come under the ordinary rules. If it does not, it is high time for special pathology to come to our aid."

The treatment by means of electricity has not made much progress during the year. In fact, much of the discredit that is cast at electrical treatment is due to the fact that too much has been claimed for it by the enthusiast who rushes frantically along every new road at the speed of electricity. For amenorrhea, lack of general or local nerve tone, neuralgic dysmenorrhea, chronic ovaritis and ovaralgia, for some cases of uterine fibroma, for cases of non-purulent inflammation around the tubes and uterus, and associated with a dislocation of these organs, electricity deserves a continued trial. At best, it can only be considered an adjunct to other modes of treatment. When used with care it has its dangers, is painful, slow, does not always produce the desired results, and is often only a palliative measure. Keith claims further progress in electrical treatment of fibro-myomata. He claims that in 19 cases out of every 20 it relieves pain, brings about a diminution of the tumor, stops hemorrhage, the results are permanent and the growth of the tumor, if it be not lessened, is stopped. Then Brandt's gymnastic treatment with massage of female pelvic diseases has received some attention at the hands of the profession during the year. While it has not been as successful a mode of treatment when practiced by others as by the author himself. We know, as Brandt claims in his opening paragraphs on "Treatment of Diseases of Women," that gymnastic treatment in general is recognized as very useful, makes the entire body stronger and healthier, and heals a number of different local affections in which medical treatment was useless. Why would it not be good in the treatment of diseases of the pelvic organs? The advocates of the measure claim to cure retroflexions and versions of the uterus, pelvic exudations and adhesions, prolapse of the vagina and rectum. It seems reasonable that non-purulent inflammatory affections of the pelvic organs could be cured by mechanical stretching and loosening of the pathological cicatrices and adhesions. Kumpz, of Vienna, who has investigated the Brandt method and received special instruction from the author himself, claims that laparotomy in fixed retroflexion of the uterus

is not justifiable unless it is preceded by a rational massage treatment. To make the treatment effective, it seems that two conditions are necessary, one of which is a positively certain diagnosis; the other a technical mastery of the method, which cannot be acquired but from instruction by a competent teacher. Like electricity, this method of treatment is slow, tedious and painful. Life is too short for the general practitioner to become proficient in either. For my part I am willing for the specialist to have them both.

The tendency of the day is toward specialties in medicine. The specialist is inclined to become confined to his branch of study and attribute to, or persuade himself to believe, that every trouble he meets with is in some way dependent on trouble connected with his specialty, and is apt to ignore the human system as a whole. The best all-around gynecologist is he who has been and is a good general practitioner. Dr. A. B. Mott contended in 1880 that no one ought to begin a specialty till he had been in general practice for at least ten years. One of the best articles that has appeared on this subject during the year is by Dr. Ethridge, of Rush Medical College, in which he claims that too little attention is paid to the subject of general medical treatment of our gynecological patients. The gynecologist is apt to associate nervousness, headaches and backaches with diseases of the womb entirely, and will overlook nervousness arising from an imperfect capillary circulation in some part of the nervous centres, notably in the spinal cord, and that it is very often associated with deficient excretion from the skin. kidneys or bowels, and with defective cardiac action. The weak heart shares a great deal more in producing this symptom of nervousness than is generally accorded to it. Renal insufficiency, also the presence of a superabundance of uric acid, are potent factors in producing these symptoms. One of the most common of gynecological patients that we meet with is the vast class presenting constipation, dyspepsia and anæmia. Constipation can derange more lives with nervousness than any one pathological condition that can be named. A sudorific or a diuretic will make many nervous patients less nervous.

### INFRA-PERITONEAL DISPOSITION OF THE PEDICLE IN SUPRA-VAGINAL HYSTERECTOMY.

By Joseph Graham, A.B., M.D., Charlotte, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

The specimen which I present for your inspection to-day consists of the Ovaries, Fallopian Tubes and Uterus, with a number of fibroids, weighing twenty-six pounds, and removed en masse by a method recommended by Dr. James R. Goffe, of New York City, and styled by him, A New Method; The Intra-Abdominal, but Extra-Peritoneal Method, of Disposing of the Pedicle in Supra-Vaginal Hysterectomy for Fibroid Tumor. The removal of nterine fibroids by abdominal section is a subject of the greatest importance. And operators are divided into two schools—one preferring to treat the pedicle by the intra-peritoneal, and the other by the extra-peritoneal method. On account of the character of the tissues composing the stump, and the very great danger from bemorrhage and sepsis when it was dropped within, advocates soon arose for securing the pedicle in the abdominal wound. But although better results have attended this method, on account of its removal from the peritoneal eavity, still the mortality which has thus far followed it, even in the hands of the most experienced and skillful operators, must exclude it from the pale of safe operations.

And even should the patient escape with her life through a tedious confinement, rendered exceedingly unpleasant and uncomfortable by the gradual sloughing of the stump in the abdominal wound; yet, even then, she is liable to be overtaken by many or all of the unpleasant features which go to make up the undesirable sequelæ of this plan of disposing of the pedicle. Not least among these may be noted the liability to hernia at the location of the stump—the interference with the functions of the bladder, as well as the dragging of the stump in the abdominal wall. And last, but not least, besides all these disadvantages, we cannot fix the stump in the abdominal wound without violating that broad principle of abdominal surgery which teaches us te "restore all the parts, as near as possible, to their proper relations with each other before

closing the wound." So there can be no question that, if supravaginal hysterectomy is to have a valuable future, the stump must be disposed of more nearly in its natural position than by fastening it in the abdominal wound. Goffe's operation of intra-abdominal with infra-peritoneal disposition of the pedicle, of which I am about to report you a successful case, I think comes nearer to the perfection of a mode than any I have seen recommended.

About the 15th of March, 1892, I was requested by Dr. D. O'Donoghue to see with him, at the Good Samaritan Hospital (an institution kept up for the colored people by St. Peter's Episcopal Church of Charlotte, North Carolina), Mary Hunter, who had been under his care for some time on account of menorrhagia, and numerous other discomforts, from an abdominal tumor, which had recently increased rapidly in size. He and several other physicians had already examined her, and the majority agreed with him that some operation by abdominal section was the only thing which promised the patient any chance of relief.

From the patient herself I elicited the following history: Aged 24 years; unmarried; never pregnant; born in Alamance county, North Carolina, of healthy parents; began to menstruate at about 13 years of age; function normal, painless and lasting about three days. When about 19 years old she observed an enlargement in lower portion of her abdomen, which increased very slowly for the next three years. The menstruation, however, began to be painful, and lasted from a week to ten and twelve days, and was sometimes quite hæmorrhagic.

For the last two years the tumors had increased much in number and size, producing pain in left hypochondrium and frequent painful micturition from pressure. The growth had now reached the size of a pregnant uterns near to the end of eighth month of gestation. Carefully examining the abdomen, I found a number of hard tumors, varying much in size—some floating at the ends of longer, and others from shorter pedicles, but all clustering around, and some apparently forming part of, what I was satisfied was the uterus. That portion of the tumor in lowest part of the abdomen was practically fixed, and could not be lifted—nor was it susceptible of much motion from side to side.

Per vaginam I found cervix uteri of normal size, quite low in pelvis and incapable of lateral motion. Passing a sound, I found

it to enter to the depth of about four and a half inches; and turning it in different directions, proved the uterus to be a part of the general tumor. There appeared to be no adhesions of any consequence, but the mass was firmly locked in the pelvis on account of its great irregularity.

I now placed the patient in the knce-chest posture, and even then, although using considerable force, found it impossible to dislodge the tumor from the pelvic cavity.

My diagnosis was multiple fibroids of the uterus. And on account of her sufferings and rapidly increasing helplessness, I advised hysterectomy for the removal of the whole mass. Her already unwieldy size, together with great soreness of the abdomen, precluded any hope of relief by establishing artificial menopause by means of Tait's operation.

My proposal for operation was very readily accepted by the patient as a message of hope. And accordingly on Tuesday, March 22d, 1892, with the assistance of my partner, Dr. S. B. Jones, Drs. Will. A. Graham, D. O'Donoghue, H. M. Wilder and R. L. Gibbon, I operated. Dr. Wilder very kindly and skillfully administered the anæsthetic, which was chloroform. The bladder having been catheterized, the vagina was washed out with soap and water, followed by a solution of bichloride of mercury, and the abdomen was thoroughly cleansed in like manner, except there was a neglect to shear off the hair—a neglect which we had cause to regret in the after-treatment.

Everything being now in readiness, I cut rapidly through the linea alba, and opening the peritoneum, came upon a nest of mul tiple fibroids of various sizes and different lengths of pedicles. Having observed before beginning the operation that several quite large tumors seemed to float from longer pedicles, I had hoped to be able to deliver the mass seriatim through a six-inch incision, but in this I was mistaken, and found it necessary to extend the cut nearly to the pubis and about one and a half inches above the umbilicus, before I got room enough to deliver the mass outside the abdomen, and even then I only partially succeeded, after rocking it from side to side trying to unlock it from the pelvis. The tumors were so numerous and involved the uterine substance so low down, that it was impossible to lift the mass outside the cavity till after it had been severed from the stump. Expecting to treat the stump

infra-peritoneally and find no adhesions of the bladder to the tumor, I now made an elliptical incision through the peritoneum across the front and posterior surfaces of the tumor successively, and dissected the peritoneum down below the internal os uteri.

An elastic ligature was here thrown around the mass, including appendages and uterus; and, being pushed down to the bottom of the posterior and anterior flaps, it was securely fastened by a strong pair of clamp forceps. Amputation was now performed just above the elastic ligature, and the tumor removed. But before I could transfix the pedicle the elastic ligature slipped on account of the shrinking of a small tumor located very low down, which had been partly included in it, and quite a free hæmorrhage ensued from the enlarged arteries and veins.

An assistant introducing his fingers per vaginam and pushing up the stump, the broad ligament was quickly in hand, and the bleeding vessels secured by means of catgut ligatures. Now, carefully freeing the pelvis of all blood, the pedicle was transfixed, within the flaps, with strong Chinese twisted silk, and tied on either side of the cervix, like the pedicle of an ovarian tumor, each knot being cut short. I believe, now, however, that it would have been better to have left one long end to this ligature, and have passed it through the cervical canal into the vagina for its more easy removal after the accomplishment of its work.

The stump had been cut so low down to get below all fibroids, that it needed no trimming. From now to the completion of the operation I followed so nearly Dr. Goffe's directions that I quote much of his exact language in describing it. Now, beginning at the upper border of the left broad ligament, the raw surface was covered in by an over and over continuous stitch of fine silk-worm gut down its entire width; then, over the top of the stump, the peritoneum having been closely and firmly stitched, the suture was continued up the width of the right broad ligament to its free border; so that the bottom of the pelvis presented only a smooth peritoneal surface with this continuous line of silk-worm gut suture running across from side to side.

On account of the accidental hamorrhage and the consequent delay the peritoneal cavity was thoroughly flushed with boiled water at about 110°, and also a hot, weak solution of bichloride of mercury. This last was used by mistake, and I was unaware of it till I noticed some sequelæ some days after the operation. After all this was thoroughly dried out and the toilet of the peritoneum completed, the abdominal cavity was closed by means of silk sutures, which had been thoroughly prepared antiseptically by Dr. S. B. Jones. The dressings consisted of iodoform gauze, layers of absorbent cotton and a roller bandage of bichloride of mercury gauze to hold them in place and give support to the abdomen.

Patient was put to bed with plenty of heat applied externally, and she rallied well, vomiting only a little from the anæsthetic. She complained, as soon as from under the influence of chloroform, of paroxysmal pains, like after pains, referred to the region of the stump. For these she had hypodermatic injection of morphine and atropia, which had to be repeated from time to time till stump ligature had had time to become loosened.

Evening after the operation the temperature was 100°; pulse 80. May 23d, 9 a. m., temperature 101°; pulse 88.

Fearing some intestinal adhesion should take place in pelvis, I determined to give Rochelle salts, 3 j, every two hours till bowels had acted; also hoping to relieve sepsis should temperature be due to that. Stomach was very intolerant of the salts, and, by the time for the third dose, would not retain it at all, but vomited it with a good deal of bile. Gave large turpentine enema in soap-suds—no action, but rested fairly well that night.

May 24th, 9 a.m., temperature 101°; pulse 84; stomach quite intolerant, with spitting of a good deal of frothy saliva. No good action having thus far been obtained from the bowels, I determined to give her calomel, grains x. Three hours afterwards used turpentine and yelk of egg injection—retained.

6 p m.—No action yet. Began to fear paresis of the bowel as abdomen was greatly distended. Injection of Epsom salts and glycerine, which brought a large, liquid, fecal action. Under morphia patient had quite a comfortable night.

25th, 9 a. m.—Temperature 99.5°; palse 80; very much nause-ated; cause not discernible.

6. p. m.—Temperature 100 %; pulse 85; nausea unabated; unable to retain anything on her stomach; nausea relieved by hypodermatic injection of morphia and atropia.

26th, 9 a. m.—Temperature 101.1; pulse 96; not nauseated;

dilated cervix uteri, and washed from under peritoneal flaps about an ounce of dark grumous blood, very offensive.

2 p. m.—Temperature 102°; pulse 96.

5 p. m.—Temperature  $102.\frac{30}{5}$ ; pulse 100; rewashed stump with carbolic solution 1—40.

27th, 9 a.m.-Temperature 101°; pulse 110.

28th, 9 a m.—Temperature 101°; pulse 110; dilated cervix and washed out a lot of broken down slough from above the ligature—very offensive indeed.

I learn from patient that mouth and parotid glands are quite sore, and have been so from the morning of the 24th (second morning after using the bichloride solution in the peritoneal cavity, and before taking the dose of calomel); painful mucous plaques found both in mouth and vagina. This condition accounts for most of the unpleasant symptoms up to this time—some were due, as seen when the dressing and stitches were removed on the seventh day, to a small mural abscess at the lowest stitch near pubis, where we had failed to shave the hair. About the fourth day there was plenty of sloughing septic accumulation about the stump to account for the rises of temperature.

A detail of the symptoms from this time on would prove not only tedious, but uninteresting. Suffice it to say that I washed the cervix out daily with salt and water till the temperature stood at normal. I tried several kinds of drainage tubes, but none gave me as good results as the daily washings; these were continued for eighteen days. The ligature was removed through cervix on the 21st day. At the end of the fourth week patient was up and about her room. Since that time recovery has been uninterrupted, till now she is a well woman.

A letter from Dr. Goffe tells me has modified the operation in one case by placing a draining-tube through the stump before closing the flaps, but his patient died from shock, so that he was unable to say whether the modification was an improvement or not.

Professor Keene writes Dr. Goffe that he has done the operation also, but modified it by "ligating the uterine and ovarian arteries in the broad ligaments instead of transfixing the stump."

Both of the above suggestions had occurred to me while treating this case, and were discussed with my partner, Dr. S. B. Jones.

Some plan which will obviate the sloughing of the stump seems

to be all that is needed to stamp this the ideal supra-vaginal hysterectomy. And although it may not always be an easy matter to carry out Prof. Keene's suggestion of ligating the arteries in the broad ligaments, yet I believe it should be tried, and a V shaped metal drainage-tube, open at the upper end, inserted in the cervical canal, to remain as long as it might be needed. When it had fulfilled its mission it could be easily removed by dilating the cervix and compressing the upper end of the tube with a pair of slender forceps.

#### DISCUSSION.

Dr. Michael, in discussing Dr. Graham's paper, was much struck by the first remarks of the author, in which he said that, while we acknowledge that these cases had better be sent to specialists, there occur cases which are not able to incur the expense, and it is our duty to do our best for them. He thought the author had nothing to fear if this case were a specimen of his skill. He was interested in the manner of treating the pedicle. The treatment heretofore in vogue of attaching the stump to the abdominal wound is repugnant to modern surgery, and he has for a long time thought that the development of this matter must turn in the direction of the subperitoneal method, which has heretofore been unsuccessful. method here represented is not altogether a novel one, the outcome of any one man's ideas, but it is the aggregation of suggestions from various surgeons He believed what was so brilliantly represented in the author's paper will in some form or other ultimately be the method by which these pedicles will be dealt with. He thought the previous ligation of the uterine arteries would play an important part in the management of these cases. He had never removed such a tumor and would undertake the task with great hesitancy. He disapproved of the idea advanced by the author of leaving the ligatures long and carrying one end through the cervical canal lest they be the means of carrying infection to the stump. He is convinced that in a simple wound-cavity there is no need for drainage under proper precautions. For some years he has almost abandoned the use of drainage for general surgery. In amputations of the breast, and even in operations where the knee-joint was opened, he has closed the wound without drainage and left the dressings on for four weeks, and thinks the treatment of the pedicle could be carried out on the same principle without the use of the long ligature. He thought the case reflected great credit on the author.

Dr. Chambers was much interested both in the case itself and in the treatment of the pedicle He referred to the unsatisfactory method of dealing with the stump heretofore. He thought it not desirable to ligate an artery some distance from the point at which it was to be cut. As the stump in this method of treatment was where it could not be gotten at, he thought the author's suggestion of carrying the ligature through the canal quite reasonable. The ligature, however, would probably not drain much on account of the tightness of the canal. The mortality where such large tumors were removed from any part of the body was quite large, and the wonder ought not to be that so many die, but that so many recover. The treatment of this case leaves the parts very nearly in their normal relations, which is a great desideratum. It avoids the unnatural condition of having the pelvic contents bound to the anterior abdominal wall the balance of the woman's life. He thought that in time, with some modifications, it would become the universal method of treating the pedicle. He thought it the most interesting specimen of the kind he had ever seen.

Dr. Graham explained that his idea in carrying the ligature through the canal was not for drainage at all, but simply as a means for getting rid of the ligature at any earlier period after it had accomplished its object. He thought the objection on account of the danger of sepsis probably had some foundation, but the canal is open any way.

HUCKLEBERRY TINCTURE has come in for leucoplakia and other diseases of the mouth and tonsils. This time it is the European plant *Vaccinium Myrtilli*, but as we have huckleberries of many species on the summits of mountains in North Carolina and in the swamps of several tiers of eastern counties, we are constrained to ask if the huckleberries of Sampson are not as good as those of far off Europe?

### HOSPITAL NOTES.

By W. W. Lane, M.D., Surgeon in Charge of the City Hospital at Wilmington, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Case 1.—Supra-Pubic Lithotomy.

In July, 1889, this patient, L. B., aged about 60 years, had an artificial methra established in the supra-public region after Hunter McGuire's method, in consequence of an enlarged prostate.

The case at the time was published in the NORTH CAROLINA MEDICAL JOURNAL. A few months after the operation the patient began to suffer symptoms of stone, and, on passing a small sound through the artificial opening, the stone was discovered.

The operation for his relief was performed by passing a long director through the artificial urethra down to the stone; a long, narrow-bladed knife was carried along the groove into the bladder; it was then removed, the finger inserted, the wound enlarged and the stone removed with the stone forceps; a rubber bag was previously inserted into the rectum and filled with water so as to push the bladder well over the pubes; this latter procedure is not now considered necessary, the Trendelenburg position being substituted in its place.

Two stones were found—phosphatic—the larger one weighing 3 ij, the other the size of a pumpkin-seed. The bladder was thoroughly irrigated with boric acid solution and the wound in integument apposed with silk; a catheter was left in for twenty-four hours. The wound healed rapidly and kindly, and the patient was discharged with good power of retention.

It is now nearly three years since I established this artificial urethra in the first instance, at the present time the man being in the enjoyment of good health, passing his water in a fairly good stream, and able to retain it at will.

The recti muscles appear to perform the function of a quasi sphincter remarkably well,

Case 2.—Excision of the Entire Upper Extremity, Inclubing Scapula and Part of Clavicle.

W. N., aged 54, was admitted with tuberculosis of the head of the humerus. The injury was brought about in the first instance by a fall on the shoulder. The injury resulted in several abscesses, leaving sinuses leading down to the head and upper part of humerus.

It was deemed advisable to make an effort to save the arm, and a resection was determined upon. I therefore made an incision from the top of the shoulder through the deltoid down to the bone; this revealed two or three pus-pockets in and near the head of the bone, and two or more inches of the shaft denuded of periosteum; about four and a half inches, including the head, was removed with the chain saw. The arm was dressed in the most thorough aseptic manner and strapped firmly to the side.

After the resection the disease rapidly developed in the scapula and end of clavicle. It was thought unadvisable to attempt partial section under the circumstances; so I determined to excise the entire limb along with the scapula.

The arm was first amputated through the part where the resection had been done. The axillary artery being first secured by a cord passed under the armpit and twisted over the shoulder, was then ligated. An incision was then made along the top of the shoulder and spine to the lower end of the scapula; this bone was then carefully dissected from its attachments, the blood-vessels secured and the entire bone removed. The aeromial end of the clavicle being found to be involved in the disease, about two inches of that bone was removed.

The patient has recovered his usual good health, though there are now sinuses still existing, probably coming from sternum and ribs.

Case 3.—Ectopic Pregnancy.—Operation by Dr. William J. Love, July 30, 1891.

It has been very difficult to get a good previous history of this case—only the steps of the operation are here recorded.

Usual symptoms of pregnancy; fætal motion ceased at seventh month; operation done ten months after impregnation; sac opened; fætus and placenta removed; the latter peeling off like rotten wood;

without hæmorrhage; sac consisting of right Fallopian tube, with ovary expanded over it; the sac was removed, leaving the base crenated; sac bled only where the expanded ovary covered it; drainage-tube inserted and retained for several days; little fever from beginning to end of case; the left ovary was removed on account of the damage done to left broad ligament in breaking up adhesions, which were numerous and extensive.

Great quantities of offensive purulent matter passed daily through the tube; cavity irrigated daily with either hot salt water, carbolized water or bichloride solution, 1—4000.

By the first of November the discharge had ceased and the opening closed.

On the 6th of November she was discharged cured.

#### DISCUSSION.

Dr. W. H H. Cobb regretted that he was not present when Dr. Lane exhibited his cases. The operation for the establishment of an artificial urethra above the pubes had been often done by Dr. McGuire. He did the operation some time since for enlarged prostate, and the drainage is so complete that the patient gets rid of all the evil after-effects of the operation. He thought it should be indorsed by the profession. Dr. Davis has modified the operation by putting in the bottom stitch before inserting the tube.

Dr. Galloway mentioned the case of an elderly gentleman who suffered from an enlarged prostate with retention in whom the operation was done with success and satisfactory results. He allowed the drainage-tube to remain in about two weeks. This patient urinated through the artificial opening for three or four months, after which the opening closed and the urine was passed through the natural passage.

PROFESSOR P. W. BEDFORD, of the New York College of Pharmacy, Editor of the *Pharmaceutical Record*, and a member of the Committee of Revision of the Pharmacopeia, U. S., died suddenly July 20th from apoplexy while in attendance on the meeting of the American Pharmaceutical Association, at the Profile House, White Mountains. Prof. Bedford served for two terms upon the Committee of Revision from 1880 to date, He was a most assiduous promoter of the interests of the Pharmacopeia, and as a teacher was highly esteemed by his confréres.

# REPORT OF THE CHAIRMAN OF THE SECTION ON MATERIA MEDICA AND THERAPEUTICS.

By R. G. Noble, M.D., Selma, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

The report of the Chairman of the Section of Materia Medica can only be a reiteration of things recently published in medical journals, and your time is too valuable for me to consume in reading abstracts from the journals of cases you have already read.

Pyoktanin is an antiseptic substance derived from aniline colors, occurring in two colors, blue and yellow, and all that I shall say of pyoktanin will have reference to the blue only. It is insoluble in collodion, ether and benzine; is soluble in chloroform, in 50 parts of glycerine and 12 parts of 90 per cent. alcohol. It is also soluble in 30 parts of boiling water, and easily so in 50 parts of hot water. For most purposes, however, we require a cold water solution, which can be made of any required strength up to a concentration of 1 part of pyoktanin in 75 parts of cold water. One disadvantage in the use of pyoktanin is that the blue color masks the wound so that we cannot see what the actual condition is.

"Pyoktanin has been shown to possess great germ-destroying power, and this, in connection with its ready diffusibility in healthy as well as diseased animal tissue, makes it a very promising remedial agent, especially so as it is harmless compared to the bichloride of mercury, carbolic acid an similar substances. It is devoid of any injurious effect on the human economy if used with proper precautions."—H. J. Boldt, M.D., in *Merck's Bulletin*.

Dr. Balfour, of Monil Kan, used pyoktanin with success in a case of facial crysipelas. He used a 1—500 solution applied every four hours. He says: "Patient declared pain left in twenty minutes after first application."

Dr. A. B. McKinnon, of Fairhaven, Wash., used a solution of 1—100 on a tumor of the lip, the edges of which were reddened and everted, the centre a dirty, ulcerated-looking mass, with perfect

success. The tumor had been pronounced carcinoma by several physicians.

"In small doses, one and two-thirds to three and one-third grains, by the mouth, pyoktanin may cause malaise, nausea, certain painful sensations and a transient albuminuria. In large doses, six to ten grains, for one unaccustomed to it, it may produce vomiting diarrhea, vesical tenesmus and albuminuria. In functional nervous diseases it produces a disturbance which may dispel or shift pain, but it does not compare in activity with analgesin."—Gaillard, on the Toxicity of Pyoktanin, in L'Union Med.

Dr. W. C. Gates, of Rockland, Mich., in *Medical Age*, used pyoktanin in a case of tonsilitis, and found more and quicker relief from it than from anything he ever tried. He injected half a drachm of a solution of pyoktanin (grs. ij to \(\frac{7}{2}\)i) into each tonsil. At the end of ten hours he was a great deal better, but he injected about half the quantity again, as the tonsils were still somewhat swollen.

Dr. Balfour, of Morril, Kan., says: "I consider pyoktanin of most value, surgically, in fresh or recent wounds. However, I have had decided success with its use in chronic ulcers, but not such brilliant results as in recent wounds."

Dr. Netchaïew, of Moscow, gave to three patients suffering with incipient Bright's disease three wafers, containing half-grain each. He claims complete cures in the three cases in seventeen, nine and twelve days respectively.

Rohrer, of Zurich, in the *Therapeutic Gazette*, found that by the addition of pyoktanin to the routine treatment, of diseases of the ear, by peroxide of hydrogen and boric acid prompt cessation of the suppuration, previously uncontrolled, followed.

Dr. Tiffany, of Kansas City, Mo, says: "The remedy has not been sufficiently used to establish it as so valuable a remedy as Prof. Stilling claims it to be. My experience so far has been that the good effect of this agent is especially to be realized in inflammation of the deeper structures of the eyeball."

Three cases of epithelioma of the eyelid, one of cancer of the tongue and one of primary cancer of the glands of the neck, were treated with pyoktanin. All were failures. On extirpating the growths a microscopical examination showed not the slightest change in the epithelial elements.—Le Deuter, in La Tribune. Med.

Queene found that similar injections softened the centre of tumors without in the least affecting the periphery.

DuPré employed the drug in three cases of facial epithelioma and in two cases of inoperable uterine cancer, with no beneficial effect save a lessening of the disagreeable odor.

Guthman and Ehrlich, in Berliver Klinische Wochenschrift, were induced to try pyoktaniu in the treatment of malaria. They decided that the drug had a decided curative influence over the disease—the periodical attacks of fever ceased within a few days of the exhibition of the drug, and at the end of eight days, at the latest, all plasmoida had disappeared from the blood. They say the treatment must be continued at least eight or ten days after the disappearance of the fever. They administered the drug in doses of one to five grains, in capsules, five times a day.

The action of pyoktanin is very striking if we consider that modern synthetical chemistry has for years tried in vain to produce a substance which shall exercise a curative influence on malaria. All the modern antipyretics—first of all quinoline, then kairin, antipyrine, antifebrin, thalline, phenacetine, etc., have not come up to this task.

No unpleasant symptoms of any consequence have been observed. The sole untoward effect having been a slight spastic irritation of the bladder with increased desire to urinate, which, however, can be avoided by administering a pinch of powdered nutmeg several times a day. Naturally the urine is colored intensely blue after taking the drug, and the stools themselves become blue immediately upon access to air."

Whether the treatment of intermittent fever by means of pyoktanin will have any effect on the periodicity of malaria or guard against relapses, which often supervene also upon the quinine treatment, cannot as yet be stated. The future will have to decide the important question, as Laveran, in Languedoc Medical, reports two cases of patients who were suffering from malarial disease, to whom he gave the drug in the dose of four to six grains a day until they had taken about two drachms of the drug without producing any effect on the malarial organism. As the result of his experiments, he says that "pyoktanin is utterly without effect, and simply serves to color the urine blue."

Professor Stilling, of Strassburg, in Merck's Bulletin, the inven-

tor of pyoktanin, says "the results obtained from the use of pyoktanin in ophthalmologic practice are extraordinarily satisfactory. Conjunctivitis heals generally in a day; corneal ulcers, as a rule, in one or two days; serious cases naturally requiring a longer time, nevertheless healing in a very short time, as compared to that required heretofore under the usual methods of treatment. The eminent suitability of the name 'Pyoktanın' (English 'Pus-killer') for this group of pigments has been redemonstrated, in still a more extended application than that suggested by Stilling even; as, from Buckner's investigations, it appears that this group of pigments possesses the faculty of rendering inert not only the pus-bacteria themselves, but also the toxines, i. e., poisonous emanations, produced by the bacteria."

Dr. Marchetti, in *Merck's Bulletin*, after extensive investigations, has arrived at the following conclusions:

1st. In  $\frac{1}{2}$  p. c. solution and in pencil form pyoktanin is well borne by the eye.

2d. It is an excellent remedy in ducryocistitis with denuded nasal bones; it accelerates cure in a surprising manner.

3d. In chronic blenorrhea of the lachrymal sac pyoktanin proved very serviceable in diminishing the secretion.

4th. In extensive corneal infiltrations with loss of substance, and showing no tendency to heal, the action of pyoktanin is striking.

5th. In hypopyon-keratitis pyoktanin exerts a surprising influence on the suppuration; sometimes the hypopyon is gone and the ulcer has a healthier appearance after only twenty-four hour's treatment.

6th. In hypopyon-keratitis complicated with an affection of the lachrymal duct, pyoktanin has no effect.

7th. In a case of panophthalmia, following upon cataract, pyoktanin arrested the suppuration. As early as after twenty-four hours the troublesome subjective symptoms disappeared; the disease ran a slow course and assumed the character of a plastic interstitual choroiditis and iridocyclitis.

8th. In a case of panophthalmia subsequent to an injury to the coma, the application of pyoktanin (instillation of a 1:1000 solution, 2-3 times daily) exceeded all expectations; its energy and prompt action prevented the imminent iridocyclitis from appearing.

Dr. J. J. T. Jelks, in the Journal of the American Medical

Association, in speaking of pyoktanin in blenorrhea of the conjunctiva, says: "Some of the cases have gotten well with marvellous rapidity—a few in twenty-four to forty-eight hours; again, others have gained no benefit from the remedy I am not able to tell why this should be so."

Dr. Wyethe, of Oakland, Cal., used pyoktanin in a compound fracture of the radius and ulna, not a particle of pus forming. In a case of recurring sarcomatous tumor of the cavity of the eye an application of the pyoktanin pencil prevented a recurrence. He also used it with success after the enucleation of a large epithelioma of the uterus. He says: "The remarkable success of pyoktanin in some of my surgical and gynæcological cases render it a matter of justice to report them, or at least such typical cases as may serve to exhibit the power of the drug."

Nenci, of Warochan, in *Merck's Bulletin*, reports on the successful treatment of four obstinate cases of cystitis by means of vesical irrigation with pyoktanin solutions. After employing other remedies in vain he resorted to vesical injections of 1—1000 and 1—500 solution of pyoktanin twice daily, with the happy result of effecting a cure on the tenth and fourteenth days. As early as the second day of treatment there was a marked improvement.

Dr. Masini, in Merch's Bulletin, says: "I made two series of animal experiments with pyoktanin with a view of determining its power as an autitubercular in pulmonary tuberculosis. In the first series three cubic centimeters (forty-eight minims) of a 0.2 p. c. solution of pyoktanin were injected simultaneously with sputum containing tubercular bacilli; this procedure being repeated on each of the following days. The result was that all the animals remained healthy.

"In the second series of experiments the injections were commenced three to four weeks after tubercular infection had been effected, and were continued for three days, after which the animals were killed. In not one of these animals were there any tubercuous changes found on post-mortem examination.

Dr. von Schlen reports in the Wenier Medizin. Presse, the case of a man, aged 70, with ulcerating chancroid, in which he had remarkable success with pyoktanin. The tumor was situated in the middle of the cheek and was as large as a two-cent piece. Pyokta-

nin in substance was applied and kept in situ by means of plaster and glue.

"Within five days the secretion had already diminished considerably and the ulcer was flatter. The dressing was now renewed twice weekly, later but once a week. The surface of the ulcer rapidly cicatrized until, after two months treatment nothing was left of the chancroid save a slightly discolored scar."

Prof. A. Caccherelli, of the University of Panna, used pyoktanin in malignant neoplasms with almost negative results. In sarcoma of the lower jaw it caused an arrest of growth, but no reduction in the size of the tumor. In recurrent epithelioma of the eyelid and cheek there was no spread of the ulcer while under treatment. In one case of cancer of the breast injections of pyoktanin had no effect on the progress of the disease, while in another the same treatment completely arrested epithelial proliferation and relieved the pain.

In rodent ulcers, treated with pyoktanin-collodion, there was no healing, but the patient's condition improved considerably. In a case of epithelioma of the lip two month's application of pyoktanin-collodion (1 to 30) seemed to check the progress of the disease and improve the local condition.

Dr. Victor Bachmaier, of Vienna, treated a case of inoperable uterine carcinoma with pyoktanin injections, 1—300, using twenty-four minims every second day, gradually increasing to forty-eight minims for four months. Pain or febrile symptoms never followed the injections, nor did the case in any manner react unfavorably; and, while he expects the disease to become worse again and end in death at some future time, the patient is yet alive and even enjoys life again. Had it not been for this treatment she would have died very soon.

Prof. von Mosetig-Moorhof, in Wiener Med. Presse, in a paper on the treatment of inoperable new growths, reports four cases treated by him with pyoktanin. The first was a case of a sarcoma of the inferior maxillary of large size; the second a case of cystic sarcoma of the left sterno-clavicular articulation; the third a papilloma of the bladder; the fourth a large pelvic tumor, which assumed such size as to interfere with the movements of the bowels, finally making colotomy necessary. The tumor had ulcerated above Poupart's ligament, before the pyoktanin treatment

was adopted in this case. In all the results were entirely satisfactory, but in the last named case the result was astonishing, far after fifteen injections the tumor was reduced to one-third its former size and the patient able to be about and attend to his usual vocation.

Dr. Willy Meyer (Medical Record April, 1891) treated four cases of cancer, one epithelioma of the scalp, one epithelioma of the face, and two of cancer of the breast, which were beneficially influenced by pyoktanin.

Dr. M. Bellotti (*Rifoma Med.*) also tried the pyoktanin treatment in two cases of malignant disease with the result of improving the local condition.

Prof. M. F. Coomes, of Louisville, Ky., (Med. Age) treated two cases of lupus involving the interior and exterior portions of the nose. He says: "I have every hope of curing both cases, and make this report trusting that those who have patients with lupus will give pyoktanin a fair and impartial trial, conducting the work in a way to leave no doubt as to what agent produces the relief. I have been using three parts of pyoktanin to one thousand parts of water."

"Pyoktanin is a failure as an antiseptic," says Dr. Roswell Park in Annals of Surgery. "It cannot be relied upon in surgery except in strength that is dangerous." He adds: "Upon granulating surfaces it does not appear to be stimulating and to exert a desirable effect, but no more so than other substances within as easy or easier reach, and its stain is often undesirable. In ophthalmological practice it appears also to have scarcely come up to the requirements of the day. On the whole, then, it has but few qualities by which we are to commend it above numerous other drugs of its general class, while in all that answers to the more scrupulous demands of aseptic surgery it has proved (in my hands, as in those of others who have tested it from the purely clinical standpoint) disappointing."

Prof. II. J. Boldt, of New York (*Merck's Bulletin*, 1892) seems to have a better opinion of pyoktanin, for he says: "If, then, one has found a remedy which seemingly answers far *better* than anything hitherto known to lessen the various discomforts caused by far-advanced uterine cancer, it is his duty, in my estimation to make known his experience, though the number of cases on which

it is tried may be limited. It is for this reason I desire to call attention to the results which I have obtained by the employment of pyoktanin in the treatment of advanced uterine eareinoma." His method of treatment was to thoroughly curette all of the diseased structure within safe reach with the largest curette. A dry iodoform gauze tampon usually sufficed to check the bleeding. After forty-eight hours the gauze is removed and a douche of bichloride of mercury, 1-2000, used. The patient was then placed in Sims's position, the parts being thoroughly dried with aseptic absorbent cotton. He begins making his injections at the fundus nteri. The needle is inserted from one-half inch to the full length of the needle. One syringefull of pyoktanin solution is enough for two or three punctures. Sometimes as many as fifteen punctures are made at one sitting. He uses an aqueous solution of pyoktanin (1-100). After completing the injections pure pyoktanin powder is introduced into the cavity of the uterus, or absorbent cotton saturation, with a 1 to 75 solution, can be used instead of the dry powder.

"Care is taken, by using large tampons, to prevent soiling the patient's clothes. Immediately after the injections the patients usually experience very intense pain; it, however, does not continue longer than twenty or thirty minutes. Febrile reaction, or, in fact, any unpleasant symptoms, have never followed. It will be noticed that, regarding dosage, the treatment here advised is more heroic than that hitherto reported; but I have at no time, so far, noticed any ill-result." He speaks very highly of the analgesic properties of the drug.

Noticing a communication from Dr. Hoge in the *Virginia Medical Monthly* for October, 1891, in which he made a complete failure, he says: "Dr. Hoge's failure to achieve a satisfactory result is not astonishing, since he used the remedy insufficiently."

Also another explanation for unsatisfactory results might sometimes be found in the instability of pyoktanin solutions. It is perhaps not generally known that the solutions of pyoktanin, either alcoholic or aqueous, whether weak or strong, will not keep long; especially when exposed to light, they decompose very rapidly, that is, in the course of a couple of days, without showing their decomposition by a marked change in color. Hence the solutions should be made fresh every day.

#### EUROPHEN

is another new dermic remedy. It appears as a fine yellow powder of an aromatic, saffron-like odor, insoluble in water and glycerine, readily soluble in alcohol, in other, in benzine and in oil.

Enraphen is permanent in the dry state; but, when heated with water to 158° F., or if left in contact with moisture even at ordinary temperature, it gives off free iodine. Solutions and ointments of europhen should therefore be prepared cold. Its physiological action is similar to that of iodoform, and like iodoform and aristol, is active only when applied to moist surfaces which are able to withdraw from it a certain amount of iodine in a free state.

According to the observations thus far made, europhen appears to have the following advantages over iodoform:

- 1st. Its smell is less intense and not disagreeable.
- 2d. It is innocuous; and
- 3d. It has a lower specific gravity; and, according to Dr. Eichhoff, it has greater attenuability, owing to its lightness in weight. One part of europhen will cover as great a surface as five parts of iodoform.
- Dr. P. J. Eichhoff, of Elberfield, reports thirty-three cases in which he employed europhen. These include ulcers dersum, ulcers molle, condyloma, gonorrhœa, ulcers cruris, lupus, psoriasis, eczema, favus and scrophuloderma. All the venereal cases were favorably influenced save gonorrhœa; the cases of ulcers molle were promptly enred by simply dusting with europhen in substance. Constitutional syphilis in every form was benefited by the external appliation of europhen, in substance, as well as by the subcutaneous injection of curophen in oily solution,  $\frac{1}{4}$  to  $1\frac{1}{2}$  grains once daily. Of the non venereal affections all were benefited except eczema parasitarium, favus and psoriasis.

Vulpius states in the *Deutsche Medicinishe Wochenschrift* that the results of his bacteriological experiments agree in essential particulars with those of Siebel and Goldman. It was tested upon axthrax bacilli, staphylococcus pyogenes aureus and the bacillus pyocyamus. Anthrax bacilli attained a slight growth once, but otherwise they seemed always to be rendered inert. Staphylococci were essentially checked in their development, although, perhaps, not so much so as under the influence of iodoform.

Pyocyaneus seemed not to be influenced by europhen. He thinks that europhen is less poisonous than iodoform. He used it locally in the form of a powder-ointment and gauze, and never saw any symptoms of poisoning, nor was eczema produced.

The remedy promoted the healing of wounds, and he thinks his trials warrant him in recommending it when rapid and vigorous

granulations are to be excited.

Fernandez, in the Archives of Ophthalmology, has been experimenting with this drug, and has confirmed a number of previous reports in regard to it. He has tried it on inflamed conjunctivas and corneas, using a salve of from one-half to one per cent.

The application is less painful than iodol. A salve of five to ten per cent. is too irritating; hence a salve of less than two per cent. is recommended.

Nolda (Therap. Montsh., October, 1891,) relates some observations on europhen. In four out of six cases soft sores healed in from seven to nine days, the remaining ones in twelve to fourteen days respectively. The parts affected were washed with perchloride of mercury (1 to 2000) and the pure powder dusted on.

In one very extensive sore the author says that the half treated with europhen healed two days sooner than the other half treated with iodoform. Europhen is indicated in all cases where iodoform was formerly employed. Its healing qualities excell those of iodoform in cases of spreading ulcers.

Dr. Löwenstein presents a very valuable contribution on asepsis in the nasal cavities in the *Therapeutische Monatchefte*. "He finds the insufflation of powdered europhen of great value after operain the nose, not only because of its antiseptic properties, but as well as a remedy for checking hæmorrhage. In ozena he finds it inferior to aristol, which, when used after removal of the crusts and thorough cleansing of the nasal cavities, has yielded brilliant results. In chronic atrophic rhinitis europhen has relieved the symptoms and improved the appearance of the mucous membranes. He found, however, that a ten per cent. solution in fifteen per cent. of olive oil with eighty-five per cent. of lanolin, was more rapid and beneficial in its action. In three cases of perforating ulcer of the septum he achieved brilliant results."

# SUCCESSFUL TRANSFORMATION OF SMALL-POX INTO COW-POX.

By Thomas W. Hime, B.A., M.D., Brit. Med Jour., July 16.

May 16th, 1892, Dr. Hime obtained, through the kindness of the medical officer of Brighouse district, where small-pox had been prevalent for some time, some fresh small pox matter in sterilized capillary tubes. The lymph as it ran into the tubes was perfectly limpid, transparent and translucent.

May 17th, in the presence of the medical officer of health of Bradford, he inoculated a healthy bull calf, about ten weeks old, with this lymph. The calf was placed on the ordinary vaccination table used for these animals. With proper aseptic precautions he made fourteen incisions with great care, just penetrating through the epidermis, about three-quarters of an inch (= 2 cm. long.) Scarcely a trace of blood was drawn from 11 and a mere trace from Where any blood appeared it was carefully wiped off with sterilized blotting paper before the lymph was inserted. On the lower part of the abdomen he made seven similar incisions and inoculations. He also abraded the cuticle from a spot about the size of a shilling, while he inoculated in another spot of the same size which he scratched in various directions. The calf was fastened up with a shorter halter to prevent it licking the inoculated parts. At the end of the first day (May 18th) he thought there were signs that the insertions foreboded success, but the appearances were merely due to local disturbance.

May 21st, calf was not well—Its appetite was gone. Temperature had gone up to 103° F. When placed on the table he found four points distinctly visible and tangible, just raised about the surface. They were not larger than about the area of a grain of corn divided transversely.

May 22d, calf still unwell, with temperature 104° F. The line of insertions was still detectable to the touch by a slight roughness, but they were all manifestly aborting, while the papules were growing in size and were slightly pink.

May 25th (= 24x8), the calf was put on the table and from the pock-like appearance of the eruption he drew some lymph in steri-

lized capillary tubes in the presence of one of the public vaccinators.

In the presence of Dr. Denby he inoculated his own left arm by scratching an area as large as a sixpence. He had been many times revaccinated, and, being thus protected, the insertion produced nothing beyond a slight local effect, with a yellowish scab coming off at the eleventh day. He had from this inoculation no more general symptoms than when he was last vaccinated, but the marks left show that the action was more energetic. The application of disinfectants had no effect in checking the action of the virus

On May 28th he vaccinated Dr. W. D. in two places with lymph from calf No. 1. He had been vaccinated in infancy, 32 years ago, and one good cicatrix has remained. He had never been revaccinated, but this resulted in symptoms of primary vaccination, local irritation, extending to the glands of the axilla, some malaise, and the appearance of two pocks at the place of insertion.

On 28th May calf was vaccinated with fresh fourth-day calf vaccine, which failed.

Calf No. 2 was vaccinated from calf No. 1 (on the eleventh day of calf No. 1, May 26th), and on the fourth day (24x4) the pocks were beautiful, plump, elevated, with a yellowish scab, a broad, pearly margin, and a delicate marginal blush.

Calf No. 3 was vaccinated from calf No. 2 with perfect success. A child was vaccinated May 28th from calf No. 2, with clear lymph in two places, which developed in the ordinary course into beautiful typical vaccinal Jennerian pocks.

A test vaccination was made by a public vaccinator with ordinary vaccine lymph in two places on June 28th, but both insertions completely aborted.

He sent some virus to Sanatätsrath Fischer, of Carlsruhe; from calf No. 2 he vaccinated a cow four weeks old.

On June 18 he telegraphed that the results were superb. From this calf he vaccinated six children, and he describes the result in a letter written to the author, Dr. Hime: "Everyone of the insertions was successful, and showed the most lovely vaccinal pustules which could be seen without any undue local reaction. There was a rose-red areola and typical umbilication with true Jennerian vesicles.

The illustrations add nothing to the descriptions made by Dr.

Hime, and we trust that he will reprint his article and give us the clear illustrations which are so necessary to help one to make up their minds upon this important subject.

Dr. Hime's article, as it stands, is clearer and more convincing than those by Badcock, Ceely, Chauveau or Voight, and those who are interested in this important subject will be anxious to learn whether or not any cases inoculated with this new variolo-vaccine have imparted the disease to others by contagion.

TETANUS BACILLUS IN COBWEBS.—Two Italian professors, in sweeping out the dark corners in search of bacilli, have found the bacilli of tetanus in cobwebs. What a pity we did not know this during the siege of Richmond, when our revered Prof. Wellford was recommending it as one of the subscitutes for quinine in those times of scarcity. The science of botany is adding largely to its knowledge of species through the ambitious researches of these young adepts with the microscope, but we think pathology will not get much of it.

THE IDEAL FAMILY PHYSICIAN. - The Hon, Thomas F. Bayard recently addressed the class at one of the medical colleges in Baltimore, having for his theme "The Lawyer and the Doctor." It has been his fortune, he says, to be thrown in contact with not a few medical men who have been "as the salt of the earth" in their respective communities. A man who is already eminent by reason of his natural endowments may be said to double his talent by becoming a physician. "It has been my personal fortune," says Mr. Bayard, "to know such a man." It has been my privilege and delight to accompany him in visits where his only medicines were the personal presence and conversation of the man himself. He had shared and had lessened their anxieties; counseled the wayward; cheered the weak-hearted; had rejoiced with them that rejoiced and wept with the weeping. And I have seen such a man so surrounded by an atmosphere of love and tsust, holding, as it were, the heart strings of a family in his hands, their guide, philosopher and friend; and then I realized what a moral force in society the profession, properly comprehended and properly followed, was capable of exerting, and how relatively small a part of its usefulness was the administration of medicine."—N. Y. Med. Jour.

### EDITORIAL.

## THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

THOMAS F. WOOD, M.D., Wilmington, N. C.,
GEO. GILLETT THOMAS, M.D., "

Editors.

Original communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the Journal, by sending the address to this Office. Irompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and accept ability. All remittances must be made payable to Thomas F. Wood, M.D., P. O. Drawer 791, Wilmington, N. C.

#### SOME CHAT ABOUT MEDICAL DICTIONARIES.

In no department of medical literature has there been more effort than in that of lexicography in the last few years. America, after having monopolized the field with the work of Dunglison, again took up the work, which resulted in Thomas', Gould's, Billings', Foster's and Keating's, besides one or two small dictionaries. Immense labor has been bestowed on these volumes, and many of the best scholars in the country have been employed to aid authors in researches. With what results? Thomas was the first to break the silence; he was followed by Gould and Billings, and then by the first volume of Foster. Keatings has not been long

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enough out of the press to be thoroughly understood, but its plan is not different from the others as far as we can discern. Between the time of the death of Dunglison and the appearance of Thomas' Dictionary medicine had made strides that could not be compared with any past period. Numerous words had come in largely through the activity of the Germans, which made Cutler's "German Terms Used in Medicine" all but indispensable to one who did not have some knowledge of German and its technicalities. Thomas' Dictionary was found deficient in many of the new words, excelling, though, as most American dictionaries do, in botanical words. Chemistry, the growing science which, by its new immense territory and complicated terminology had outrun the best practical students of medicine, making a dictionary indispensable that could treat with these terms, but in all these dictionaries chemical words were deficient. Nowhere could be found an explanation of the diazo-compounds, and several practical terms known to chemical students, and occurring in the journals, had to be passed by on the part of the doctor who had studied medicine thirty years ago.

There seems to be room for two kinds of dictionaries, the encyclopediac, such as Foster is bringing out with so much ability, and the other, the convenient one after the fashion of Gould's somewhat, but more in shape and typography and cheapness like Nuttall's Dictionary. Something like one-third of the words in every medical dictionary are botanical words which are obsolete as to their therapeutical use, and are of no service except to a botanist who wants to make a momentary reference, but even for the botanist there is not en ugh to satisfy his research. The medical men of to-day care nothing about botany or chemistry; they may like to know the spelling of a word new to them, and they may be compelled to find a chemical term in order to get the meaning of a sentence.

Just what botanical or chemical terms may be left out by the lexicographers, would require a wise head to determine. Yet it could be done, and so reduce the size of volumes very greatly and leave room for living words.

The encyclopediac dictionary may, and probably will, take a complete stand at once, and our belief is that it will prevent a rival coming into the field for a time longer than did Dunglison's work.

The smaller dictionary, the one for the beginner, the one for the busy doctor (always too busy to read anything but "the Brief"), the

one that a proof-reader will like to have constantly under his thumb, the one divested of obsolete learning, the "Webster's Abridged" of medicine, the one to cost about \$1.00, is not yet made. It is going to come, for the big dictionaries are doing the work now for just such a handy little volume. The wise editor of this coming work is going to drop the herbs which have been handed down to us since Turner's day (1532), except "ticke seede" or Palma Christi and a few others, and retain a list only a little longer than that which now burdens the Ph. U.S.

One of our learned professors teaches us that acetanilid causes general euphory; you have just taken your wrapper off your newest dictionary and find it not there; so go searching. Driven to the wall, we light on Quincy's Dictionary (acknowledge it, reader of the fifties, that you have never heard of such a book!) and find it there.

But then the word was obsolete, as shown by its appearance in Quincy, and why should as dignified a volume as Pepper's System put new life into an old word and send it on its journey? So the dictionary-makers have their troubles, but may not wish to take the cogitations of State or country medical editors as worthy of serious study. The editors, on their part, promise that they are not going to write a dictionary even upon the superior plan they have a right to claim as book critics; but from "Motherby" to "Keating," with all the side-lights of "The Century," "International Webster," and the ponderous and scholarly "Murray," are going to select the best they find, and leave the fruitless straw to be thrashed over again and again by those who have absolute confidence in dictionaries.

<sup>&</sup>quot;APPOTHYCARYES" IN NORTH CAROLINA IN 1585.—In a letter from Ralph Lane from Roanoke Island to Sir Francis Walsingham, dated August 12, 1585, he says: "Our arrival here, thoughe late in the yeare, hathe, nevertheless dyscouverdde unto us soe many, soe rare and soe singulere commodytyes, by the unyversalle opynyon bothe of our appothycaryes and our merchanntes here, of this his majestyes newe kingdome of Virginia," etc.—Am. Antiq. Soc. Trans. Vol. iv, p. 9.

# REVIEWS AND BOOK NOTICES.

A System of Practical Therapeutics. Edited by Hobart Amory Hare, M.D., Assisted by Walter L. Chrystie, M.D.

The third and last volume treats of the Therapeutics of the Diseases of the Skin, of Diseases of the Nervous System, Diseases of the Genito-Urinary Apparatus, Diseases of the Eye and of the Ear. The volume is a ponderous one, containing 1,392 pages 9½x6 inches. The section of diseases of the skin is by H. Raddliffe Crocker, M.D., who treats of Disorders of Secretion and New Growths, and Hypertrophies and Atrophies of the Skin by Dr. Jas. Nevin Hyde, M.D., and Neuroses and Parasites of the Skin, by Milton B. Hartzell, M.D. That it is as rich in prescriptions and specific directions will enhance its value, and this is the place to remark that the specialists in dermatology take more privileges than most specialists in using trade-mark prescriptions. General practitioners take them all in, and no place in the volume will be more thoroughly thumbed than the very first section of the volume.

The Diseases of the Nervous System opens with Hospital Treatment of Insanity and the Medical Treatment of Insanity, and covers 365 pages, including 38 pages devoted to drug addiction. These latter sections are devoid of the usual intemperate and eccentric statements which are so common among the writers upon these subjects.

The statement that there were many cases of coffee delirium from the scarcity of food and abundance of coffee, applies only to one side, as some ex-Confederates know. Delirium from coffee or from whiskey the writer never saw during his service of nearly four years in the P. A. C. S.

The diseases of the male and female urinary and generative organs are treated very fully. We are pleased to see that the diseases of pregnancy, that part appertaining to vomiting, is considered in due proportion of its importance. More women are lost from the malignant form of this vomiting than most of us are aware of. "The mortality in pernicious vomiting is high." Says the contributor, Dr. B. C. Hirst: "The disease is dangerous. Of 239 cases, 95 died; of 57 cases treated by the ordinary methods, 28 died; of 36 cases treated by the induction of abortion, 9 died."

Never before has a work of this sort given so much attention to the treatment of diseases of the eye and ear. The American profession need no longer cast aside the treatment of diseases of the eye as forbidden territory. Timidity and lack of fresh knowledge, and ignorance of the dangers of delay in doing the right thing for an organ as easily and irreparably damaged as the eye ought not to be pleaded when they fail to do their duty. They are no longer exculpable by saying they are not specialists. With such plain statements of diagnosis and treatment as given by Dr. De Schweinitz they can do valuable service until the specialist can be reached.

We would be glad to see these volumes in every library. They are large and somewhat unwieldy, but the matter contained in them is in great part from a fresh lot of authors, who have brought vigor to their work. They have added to the reputation of American therapeutics, and we congratulate the editor that he has succeeded in placing these three large volumes in our hands, before the therapeutics got stale.

THE SCIENCE AND ART OF MIDWIFERY. By WILLIAM THOMPSON LUSK, A.M., M.D. New Edition. New York: D. Appleton & Co., 1892.

This is a thorough revision of a work which from the beginning met with a high degree of appreciation from the profession in this country and abroad. In the interval since the last edition (in 1885) was issued, the author has found it necessary "to present to the profession an entirely new book." One would think that the science and art of obstetrics would be the least likely field for great advance in pathology and treatment, but still we find how great have been the changes by comparing some items and dates in this volume with what we see in daily practice. True, in a few years we have seen the pendulum swing from one side to the other upon several important questions, but finally reach a conservative level that needed no pedantic explanation to impress the practical obstetrician with their value.

We think the author, as regards the employment of veratrum viride in eclampsia and puerperal fever, has abundant warrant in giving to that drug a higher position as a medicinal agent. Country practitioners, who get into many and tough encounters in the backwoods with eclampsia, with no brother physician to consult with, have found how great a boon veratrum by the mouth, and subcutaneously, has been in their dire distress with eclampsia, raising them from despair to victory, battling with this fearful foe.

This ought to be the leading book in obstetrics for medical students in America, especially in this last edition, and without knowing the secrets as to its sales, we seldom see a collection worthy to be called a library that does not include it.

EXPERIMENTAL RESEARCHES ON THE TRANSMISSION OF CANCER.—After a series of experiments on various animals, Duplay (Gaz. des Hopitaux, No. 23) draws the following conclusions: (1) Cancerous neoplasms are not transmissible from man to animals; (2) contrary to what was expected from the results of other experimenters, only negative results were obtained as to the transmission of cancer from one animal to another of the same species, after a lapse of time varying from three to eight months; still, until more experiments have been made, and under more favorable conditions, no definite conclusion is arrived at; (3) cancer is not transmissible from one animal to another of a different species; (4) the results do not permit the denial of its parasitic nature, whilst at the same time they do not enable the author to affirm it. This question remains, then, undecided —Med. and Surg. Reporter.

Dr. George M. Gould, editor of the Medical News, requests us to call attention to his offer of a prize of \$100 for the best essay sent him "setting forth historically and actually the ridiculous pretensions of modern homeopathic practice." This essay, containing not over 15,000 words, and type-written, must be sent to him on or before January 1, 1893. It must not contain the author's name, but must be accompanied by a sealed letter containing the author's name with a motto or nom de plume (corresponding to the nom de plume on the type-written essay?). When the prize has been awarded the essay will be cheaply but well printed in large quantities, and supplied to physicians at the cost of printing. We have no faith in true homeopathy, and no sympathy with that which falsely displays its banner; yet we hope that the essayists will write modestly, as there are individual "glass houses" on both sides of the fence,—Med. News and Notes.

Just as this number of the JOURNAL was about to be issued

# Dr. Chomas F. Mood,

its senior editor, passed away, after twenty-four hours of suffering, the climax of his fatal disease, under which for six years he has patiently waited for God's summons. He is at rest, and multitudes of good words and works do follow him. He has builded for himself, by his humble, trusting, Christian life, a home in that mansion prepared for the elect in Christ, and has left behind him a monument in the gratitude and love of those to whom his life and labors were a blessing and an example.



### CORRESPONDENCE.

A PASTE OF PAPOID AND SODA FOR THE SOLUTION OF MEAT AND GRISTLE FOUND OBSTRUCTING THE CESOPHAGUS.

Messrs. Editors North Carolina Medical Journal:

Recalling the interesting case reported by Dr. R. H. Whitehead, of Chapel Hill, in the North Carolina Medical Journal of February, 1892, of a child with obstruction of the esophagus with a piece of meat, relieved by the digestive action of pepsin and hydrochloric acid, I wish to call attention to a suggestion made by Dr. Frank Woodbury, of Philadelphia, in an article on Papoid in the New York Medical Journal of July 30 last. In this interesting paper he gives a short account of the history, preparation, physiological action and clinical uses of this wonderful digestive ferment of Carica Papaya, and concludes as follows: "In case of obstruction of the esophagus by an impacted piece of meat and gristle—such as has been recently reported—a paste of papoid and water with some soda would produce softening in a very few minutes."

Occlusion by a digested substance is rare when the esophagus is normal, but not so in cases of old strictures, and an easy and rapid method of overcoming it is valuable.

Dr. Whitehead's idea of using a digestive ferment was independently conceived, but other cases have been reported. Mackenzie (Diseases of the Throat and Nose, Vol. II, page 195) refers to a German case published in 1861. In this JOURNAL for October, 1887, I reported a case in conjunction with Dr. W. H. Bobbitt, of Raleigh, which was similar to Dr. Whitehead's, except that there was a previous stricture and that we used trypsin and soda instead of pepsin. I have used the method with apparent success since, but have not had an opportunity to try papoid.

K. P. BATTLE, M.D., Raleigh, N. C.

PILOCARPINE HYDROCHLORATE, hypodermically, conjoined with the internal use of camphor, is reported to have excellent results in status epilepticus.—Med. Record.—Maryland Med. Jour.

### CURRENT LITERATURE.

### ACTION OF ANTIMONY IN DISEASES OF THE SKIN.

Dr. W. A. Jamieson (Edinburgh Medical Journal) says:

Antimony lowers temperature in some conditions of the skin associated with hyperæmia and dryness of the surface, to a well-marked extent.

So far as our observations go, its influence on tissue waste as estimated from the amount of urea excreted, or on fluid loss by the kidneys, is not, under the circumstances detailed, a noticeable one.

It softens the skin, imparting increased succulence to its cells, augments insensible perspiration, improves the nutrition of the integument, diminishes hyperæmia, and lessens the tendency to premature and excessive epidermic exfoliation.

While advantageous in the early congestive stage of acute eczema, it is contra-indicated during the period characterized by oozing—the second stage of Brocq, that of rupture of vesicles—though it may again prove serviceable at a later era—the fourth stage of Brocq, that of successive desquamations. We have found this borne out by our experience of a case of eczema treated with antimony, at present in the ward.

If Mr. Morris is right, as he probably is, that it is likely to be of special use in cases where there is a functional nervous cause, it may prove of value in diffuse scleroderma, and possibly in myxædema.

As compared with arsenic, authors are pretty generally agreed that the latter is valueless in conditions of the pityriasis rnbra type—whether by this exfoliative dermatitis in its dry forms alone is meant, or if pityriasis rubra pilaris is included.

Arsenic restrains the tendency to form bullæ in dermatitis herpetiformis and pemphigus, and sometimes cures psoriasis if stationary or a first attack; but, on the other hand, it may apparently sometimes convert a psoriasis into a pityriasis rubra.

Arsenic in some cases renders the skin muddy, dull and earthy, or deeply pigmented; it may induce the formation of horny warts on the fingers, or thicken the epidermis of the palms, giving rise to a keratosis, which again may pass on to epithelioma. Such results

have not, so far, been found to follow the administration of antimony, nor are such likely to accrue.

The action of antimony may be contrasted with that of pilocarpine Pilocarpine produces a copious perspiration for a brief portion of the twenty-four hours; antimony bathes the epidermic cells continuously in a gentle moisture. Pilocarpine lessens or cures a pruritis in a dry, atrophic, anamic, senile skin, by flushing the emunctories, but its rapid stimulant effect is not suited for cases of active hyperæmia, which, as has been seen, are more amenable to the influence of antimony. Both, however, improve nutrition and aid in the deposition or restoration of diminished subcutaneous adipose tissue—Am. Lancet.

# THE OPERATIVE TREATMENT OF THE ENLARGED PROSTATE.

Keyes Medical Record, Vol. XL, No. 18) arrives at the following conclusions in regard to the treatment by operation of prostatic hypertrophy:

- 1. Prostatectomy is justifiable, and does what nothing else can.
- 2. The perineal operation is somewhat less severe, but decidedly less reliable than the supra-pubic; it should rarely be preferred, unless there be urethral complications. In very feeble men it may still be elected.
- 3. The operation is not justifiable, with present statistics, if the patient can be comfortable in catheter life.
- 4. No physical conditions of the parts or of the patient short of a practically moribund state contra-indicates operation. By it in desperate cases life is often actually saved, although the operation is a grave one and its mortality high.
- 5. With the rongeur—better than any instrument—the bladder outlet cannot be lowered, and polypoid or interstitial growths jutting into the prostatic sinus can be removed, and these points are more essential to a more successful operation than in the taking away of a large portion of the prostatic bulk. The instrument next in value is the curved scissors, but the skilled finger is most important of all. Most of the work has to be done by the aid of

touch, as the bleeding soon becomes free and renders visual inspectiou impossible.

- 6. Diuretin, perhaps, is of value when the kidneys are damaged. It certainly does no harm.
- 7. Chloroform alone should be used as an anæsthetic, for the sake of the kidneys.—Am. Jour. Med. Sciences.

#### GOLD CURE SPECIFIC.

The notoriety of this empiricism is rather a sad reflection on the general intelligence of the public, and also of many so called physicians.

Charlatanism managed with psychological skill, assuming some discovery in science, that is a rational possibility, and covering up the real motives, is always attractive to the credulous and nonexperts. But when it boldly proclaims theories outside the range of science and common sense, to be accepted entirely on faith, and the whole accepted on a great pecuniary scheme to enrich the authors, it is difficult to understand how it should receive any serious attention. Compared with other empiric schemes, the bichloride of gold is very inferior in methods of management and assumed reality. It is the same old quackery, bold, ignorant and dogmatic, without a single original feature. The wild hysterical claims of cure by those who have used the secret remedy, is the same old story that is heard after every church and temperance revival. This posing as cured men by this or that means, with certificates from clergymen and others is common history in every community. It is a curious fact that mystery and concealment should add to its popularity, and still more unexplainable that both pulpit and press should be caught by such means. It is not strange that inebriates who have received benefit from the treatment should become enthusiastic as defenders of its merits, particularly when it is a pecuniary object to do so. The rapid growth of branch institutes for the treatment is purely commercial, and are managed in nearly all cases by so-called cured men. Precisely what the secret remedy is used under the skin, and other means, are of no interest except psychologically, and as phases of the evolution of the drink evil.

The success of the author financially in this country has developed the same boldness to conquer "other worlds." But, unfortunately. he assumed that entrance into societies and scientific support was a merchantable thing, to be bought. Also that the medical, as well as the secular press, was governed by public opinion, and ready to sell out when the price was offered. This was the "Waterloo for Keelevism" abroad. The British Medical Journal, the London Lancet, the Medical Press, and several of our large dailies have denounced the whole scheme as the boldest quackery that has appeared for a long time. In the meantime, a house has been opened in London for the cure of inebriates, and the secret remedy offered for sale. An analysis of the remedy has been made and found to contain no gold, but 271 per cent. of absolute alcohol: and this statement is not denied by the managers of the cure. The Berlin authorities refused to permit a branch institute to be opened in Prussia, unless the remedy was first submitted to the public chemist for analysis. In all this the gold cure managers have displayed stupidity rarely seen among the common quacks. No attempts have been made to cover up the real pecuniary objects of enlisting capital and organizing companies for the sale of rights and remedies, as a matter of great profit. This combination of charity, business and science is new to our English relatives, and of course rejected. There is one feature of this gold cure specific worthy of study-that is the hurry and dash of the movement. Doing its work in three or four weeks, sending out the patient inflated with an idea of permanent cure, filled with extravagant expectancies and hope, and receiving full pay for this operation. This shows rare skill and full recognition of the brevity of this movement. The bichloride of gold will soon be among the things of the past; and also be a source of wonderment how it could grow and attract attention in this materialistic age. - Journal American Medical Association

# PROLAPSE OF THE EXTREMITIES IN HEAD PRESENTATIONS.

J. Kaeser (Centrallil. f. Gynük., No. 2, 1892), from a study of recorded cases, finds that prolapse of the extremities is far com-

moner in multiparæ. The complication is favored by hydramnion, contracted pelvis with previous heavy labors and twin gestation, since in these conditions the inferior uterine sagment does not press on the head with firmness sufficient to prevent prolapse of the extremities. Prolapse of the arms is less serious than prolapse of the legs, but the cord often comes down as well in these cases, and that condition is very grave for the child. When the membranes are vet entire the obstetrician must wait till the os is completely dilated. Then the protruding extremity must be pushed up and the head brought well down by external pressure. After rupture of the membranes manual reposition of the prolapsed member must be effected; if this proves unavailing and the head is movable, it will in many cases be advisable to turn. When the head is firm, reduction of the extremity should be cautiously attempted in the intervals between the pains. If this should fail, then, according to the nature of the case in other respects, natural evolution may be awaited, or the forceps or perforator may be required.—Brit, Med. Journal.

#### DR. BROADBENT ON TOXICITY OF EXALGINE.

A patient (male) aged 26 years suffered from neuralgia over the left temporal region for a week. He was inclined to be anæmic. He was ordered a dose containing four grains of exalgine, to be repeated in two hours if unrelieved; and if neither dose gave ease, he was directed to take two doses (containing eight grains in all) the following morning after breakfast. The same evening the patient took one dose and obtained relief from the pain, but at the same time complained to his wife of feeling giddy, as if drunk. Next morning at 4.30, feeling a slight return of the pain, he took the rest of the medicine, which contained twelve grains of exalgine. He immediately became dazed, clutched at the bedstead, but fell prostrate on the floor, where he remained quite unconscious for half an hour, and during this time frothed at the mouth. On my arrival at this juncture, I found him on the floor making a feeble effort to vomit. The pulse was feeble and slow; eyes closed; pupils natural. He was with difficulty got to answer questions, when he complained of pain in the region of the stomach and noises in the head. Onetenth of a grain of apomorphia given hypodermically caused him to evacuate the stomach. Subsequently one-five-hundredth of a grain of strophanthin with ten minims of ether were administered in the same way, and the man slowly rallied. The pain in the stomach disappeared first, but the noises in the head remained for some time. Later the patient could not remember events which occurred half-an-hour subsequently to his regaining apparent consciousness, and during this time he was constantly yawning. He had never had a fit in his life.

Twelve grains of exalgine must be regarded as an excessive dose, but if the toxic dose is three grains for every two pounds of body weight, as stated by some writers, these alarming symptoms not to have occurred.—London Lancet.

How Much Exact Science for a Doctor.—\* \* \* But as each science is heaping up higher and more huge pyramids of facts, so it is impossible for men aiming at general knowledge to master the facts of the so-called exact sciences. Medical men must aim at as much literary culture as they can get, and must be rather fed on the principles of science than gorged with indigestible facts. We fear the chemist will cry out against the intensely practical view of his science which Dr. Cuming takes, but we are inclined to think that the chemist will in time be inclined to think it true of his science what J. J. Rousseau said of botany—that it was a misfortune for botany when it fell into the hands of the doctors, for they only sought simples for cures, and did not really study botany as a science.—Editorial in Brit. Med. Jour.

Dr. Hunter McGuire, of Richmond, Va., was elected President of the American Medical Association, at Detroit, to serve for the ensuing year. This honor could not easily have fallen upon more competent shoulders or to the hands of a more popular man. Dr. McGuire has a strong following of friends throughout the South and Southwest that are only warmer in their admiration than those of the North and Northeast, because they are nearer to him geographically. The hearts of all, whether residing North, South, East or West, are equally warm in their manifestations of approval of Dr. McGuire's election.—Buffalo Med. Jour.

# CURRENT NOTES.

Dr. Janeway has resigned his position as professor of practice medicine in the Bellevue Hospital Medical College, and also those of attending physician to Bellevue Hospital and consulting physician to the board of health.—N. Y. Med. Times. [Dr. Janeway says his reasons for resigning is that these institutions are managed by politicians for political purposes.]—St. Louis Med. Mirror.

A STATUE TO JENNER.—It is a significant fact that while an attempt is being made in England to decry the benefits conferred on humanity by Jenner's discovery, the medical profession in Japan, impressed with the enormous benefits which vaccination has conferred on their countrymen, are taking steps to erect a statue to "that medical benefactor of mankind."—Bost. Med. and Surg. Jour.

THE KEELEY CURE IN ENGLAND.—The Church of England Temperance Society came very near endorsing this notorious proprietary cure for inebriety. A large meeting was to be held under the auspices of the Society, with a presiding Lord Bishop, in order to set forth the virtues of this method of treatment, but at the last moment, by the influence of some public-spirited physicians the meeting was postponed sine die.—Boston Medical and Surgical Journal.

Augagneur (Nouvelles Archives d'Obstetrics et de Gynecologie, May, 1892) believes that the local treatment of syphilis in pregnancy is of the greatest importance. Free antiseptic disinfection with sublimate, boric acid, etc., should be used at first; but these solutions should not be applied too freely or too long. The humidity of the parts in pregnancy may cause accidents. Hypertrophic lesions of the vulva must be carefully treated. Thus condylomata should be freely and frequently dusted with powdered boric acid, filling up all fissures and folds with the powder. The best powder, to keep the growths thoroughly dry, and thus to cause their atrophy, is made of ten parts of boracic acid to twenty parts of powdered tale. This compound is almost impalpable, non irritant antiseptic and very adherent. Without careful treatment condylomata grow quickly in pregnancy and may cause grave complications.— University Medical Magazine.

The prevention of typhoid still remains the greatest problem to be solved; and since the principles are so well founded more than half of them are allowed by negligence.

United States Census.—According to recent returns from the last census there were, in the United States, 62,622,650 inhabitants, of whom 53,372,703 were born in the United States. The colored population, including Chinese, Japanese and civilized Indians, was 7,638,360. There were 32,067,880 males and 30,554,370 females. During the last decade the increase of males was 25.66 per cent, while that of females was 24.02 per cent.—Boston Medical and Surgical Journal.

How to Use Peroxide of Hydrogen.—In a recent number of the American Journal of Dental Science Dr. Brophy says:

"I saw a case, a day or two ago, where peroxide of hydrogen was injected in such a cavity as we are speaking about. The patient called on one of our practitioners, and he found what he supposed was a chronic abseess where a tooth had been extracted. He filled a rubber syringe with peroxide of hydrogen and carried it up into the socket of a bicuspid tooth, and let the fluid go. The patient told me that he thought he was going to lose his head. I said: "What do you mean?" "I really thought my head would burst." The peroxide of hydrogen entered the antral cavity, which was half filled with pus, and you know what the result would be in such a case. The dentist did not observe the precaution of thoroughly irrigating the cavity with carbolized water, or even warm water. He should have cleaned out the greater quantity of the pus, and then he could have made use of the peroxide of hydrogen and removed the little remnants on the mucous wall which the carbolized water would not remove. He would then have the cavity in shape to use boracic acid or whatever he wished. I would put boracic acid crystals in there and let them lie so as to get the prolonged action of the antiseptic. The crystals would dissolve slowly and would serve our purposes better than any fluid."-Maryland Med. Journal.

A NEW METHOD OF INTRODUCING THE EUSTACHIAN CATHETER—Dr. J. M. Ball, of Keokuk, Iowa, describes his method of introducing the Eustachian catheter. After cleansing and cocainizing the nasal mucous membrane, he retracts the soft palate with

White's retractor, has the patient hold down his tongue with a tongue depressor while he passes the catheter through the nose; then, by introducing a mirror into the pharynx, he is able to see that the catheter enters the orifice of the Eustachian tube. After the introduction of the catheter the mirror is withdrawn and the inflation is completed in the usual way,—Journal of the American Medical Association.

THE CHOLERA is now declared epidemic in Baku, on the Caspian Sea, and the inhabitants are fleeing from the city, even the government officials and city authorities having deserted their posts. The condition of the sick and of the few who remain to care for them, is said to be deplorable in the extreme. It is rumored that the disease exists in Kertch and other Crimean ports, and Akka, or Acre, on the Mediterranean shore of Asia Minor, is also infected. In Paris, the disease called by the authorities "Cholerine," continues to spread, though in a mild form.—Medical Record.

An Ancient Epigram and a Modern Instance.—The Brit. Medical Journal states that one of the physicians of the Glasgow Western Infirmary objects to his patients being handled on cold mornings by students having cold hands. In order to call attention to this evil, complained of anciently by Martial, in his epigram to Symmachus, his physician, the Glasgow professor offered a small prize for the best translation of Martial's epigram:

Smart cam' ye, sir, to me na weel,
A hundert students at your heel;
A hundert hauns did ower me feel
Wi' Boreas blue.
I had nae fever then, but, deil,
I have it noo.

The other rendering, by Mr. J. F. Gemmill, reads:

I lay in number twenty-one, a case for rest and tonics,

And good old G——— came round to me with all his train of
chronics;

A hundred meds., with fingers blue, palpated me like Lister, And now, no longer weak and cold, I'm frizzling like a blister.

Pretty poor translations both.—Med. Record.

The Court of Appeals of Kentucky has recently decided that syphilis, pleaded in answer to an action to recover damages for breach of promise of marriage, is a complete defence, following the decision of the Supreme Court of the State of North Carolina, in which the same defence was interposed and sustained in a similar action.— Weekly Medical Review.

TREATMENT OF CONVULSIONS .- Dr. Blacklock (London Lancet) describes his treatment of convulsions in children as follows: "When summoned to one of these cases I took with me a one and one-half ounce bottle containing sixty grains of chloral hydrate dissolved in water, and a small glass male syringe, which holds two drachms; I prefer that the nozzle of this shall have been shortened and rounded by heating in the gas or spirit lamp. As the child lies on the nurse's lap it is turned on one side, the syringe introduced into the rectum, and one, two or three drachms of solution injected. according to age. A child between one and two years old will take one drachm, one three or four years old will take two drachms. When withdrawing the syringe press the buttocks firmly together to prevent the solution escaping, and keep up this pressure for about five or seven minutes, by which time the convulsions will have greatly moderated—they generally cease altogether within ten minutes. I find that a solution of this strength causes no irritation. I have tried the same hypodermically, but with less success, and parents object to the repeated punctures which are necessary for injecting the required quantity. In no case has any evil result happened in my experience. - Western Medical Reporter.

The Progress of Cholera.—From the reports published in European journals it would appear that cholera has been very prevalent in India, and its further development in Europe is feared. Cholera this year has followed the northernmost of the three routes from India, the route which it followed in 1829 and in 1843—'44. The movements of trade in Central Asia have been profoundly modified by the building of the Transcaspian Railway, which runs from Samarcand, touches the Persian frontier at Askabad, and strikes westward to the eastern shore of the Caspian. The trading route crosses the Caspian to Baku, which is the terminus of the Transcaucasian Railway, which runs by way of Tiflis into Southern

Russia. There is also a large coasting trade from Baku northward to Astrakhan at the mouth of the Volga. Cholera has followed this route from Askabad, on the Persian frontier, to Saratov, which is 500 yersts above the mouth of the Volga.

It reached Persia from Afghanistan, and penetrated the Russian frontier about the end of May or the beginning of April. The first Russian town attacked was Askabad, which is a station on the Transcaspian Railway, and spread along the railway, both eastwards and westwards, with a rapidity which may fairly be called alarming, and is certainly unprecedented. It reached the eastern shore of the Caspian Sea in a few days, and was not arrested by this natural boundary. Following the ordinary course of trade, it soon made its appearance on the western shore of this great inland lake; Baku, the petroleum port, was the first place infected, and a large number of deaths have occurred there. Extraordinary efforts were made by the Russian officials, by quarantine regulations of a very strict kind, which involved the complete arrest of all trade, to keep the epidemic limited to Baku and its immediate neighborhood. When we wrote last week it was hoped that this had been accomplished, but the official news of this week shows that this hope has been disappointed, and that quarantine has once more shown itself to be merely "an elaborate example of leakiness."

From Baku the epidemic has spread in three directions—south to Shusha, near the Turkish frontier; north along the line of coasting traffic to the mouth of the Volga, and westward to Tiflis, which is on the Transcaspian Railway. It has been keenly apprehended that if the epidemic once became established at Astrakhan, at the mouth of the Volga, it would quickly gain a foothold in some of the provinces which have suffered most from the famine. This apprehension has, it is to be feared, been realized, for it is now admitted officially that cholera has appeared in Saratov, the capital of the province of that name. Twenty-nine deaths occurred in the first four days of this month, and it is impossible not to feel that the presence of the epidemic among a population already decimated by famine and disease constitutes a very serious menace to Europe. It was reported on July 6th from St. Petersburg that cholera had appeared in the province of Kostroma, some 700 miles further up the Volga, and in the very centre of Russia in Europe.

Very optimistic opinions have been telegraphed from Vienna,

but, while sympathizing with the motive of such utterances, we are not altogether prepared to endorse them. The progress of sanitation in this and other countries of Western Europe has come very much to remove the faulty social conditions under which cholera is known to flourish; but our immunity is only to be secured at the price of constant vigilance. Dr. Proust has truly observed, in a recent report to the Comité Consultatif d'Hygiene de France, that if the infection spreads to the Black Sea there is every prospect of the epidemic following the lines of the visitations of 1831 and 1847—that is to say, either northward, through Austria and Germany, or directly eastward, through Northern Turkey and the Danubian principalities.

There is no doubt that there has been a considerable prevalence of cholera in India this year, and that it has in fact become distinctly epidemic there. A correspondent, writing from Srinagar under date June 11th, states that the epidemic there began May 9th, and that there had been over 8,000 cases and 5,000 deaths in Srinagar alone out of a population of 124,000, and at least 1,500 deaths in the district. It is hoped that the worst is now over.—Med. Age.

CAMPHOID, A NEW COLLODION.—The American Druggist refers to the above named substance as a possible substitute for collodion. It is a property of iodoform that it is soluble, one part in ten, in Rubini's solution of camphor-that is, equal parts by weight of camphor and absolute alcohol-and may be thus used as a topical application. This requires fixing on the part, to get the best results; this object is attained by the addition of pyroxylin, one part in forty of the iodoform and camphor solution. A complete solution can be made in these proportions. When applied to the skin with a brush, the fluid does not spread, but dries up in a few minutes and leaves an elastic opaque film that will not readily wash off. The excess of camphor volatilizes and masks the odor of the iodoform. The gun-cotton may be used with the simple camphor solution, in the strength above mentioned, and be made to serve as an eligible base for dermatic medicaments, such as resorcin, chrysarobin, ichthyol, iodine, carbolic acid or salicylic acid. Martindale, in the Pharmaceutical Journal for April 9, suggests that, if the camphor and pyroxylin solution shall prove acceptable to the profession, it may be named "camphoid" In that event, the formula would

read as follows: Camphor, 20 parts; absolute alcohol, 20 parts; pyroxylin, 1 part.—Jour. Am. Med. Assoc'n.

MEDICAL HEROISM.—Three men were recently rendered unconscious by fumes while clearing out a blast furnace at Sunderland, England. Dr. Glen ascended to where the men were working on the top of the stone, lashed himself to a rope to prevent his falling, and for fully an hour applied artificial respiration, his efforts being finally crowned with success.—Medical Record.

TREATMENT OF APPENDICITIS.—Dr. Senn's conclusions are these: 1. All cases of catarrhal and ulcerative appendicitis should be treated by laparotomy and excision of the appendix as soon as the lesion can be recognized. 2. Excision of the appendix in cases of simple. uncomplicated appendicitis is one of the easiest and safest of all intra-abdominal operations. 3. Excisions of the appendix in cases of appendicitis before perforation has occurred, is both a curative and prophylactic measure. 4. The most constant and reliable symptoms indicating the existence of appendicitis are recurring pains and circumscribed tenderness in the region of the appendix. 5. All operations should be done through a straight incision, parallel to, and directly over, the cæcum. 6. The stump after excision of the appendix should be carefully disinfected, iodoformized, and covered with peritoneum by suturing the serous surface of the cæcum on each side over it with a number of Lembert stitches. 7. The abdominal incision should be closed by two rows of sutures, the first embracing the peritoneum, and the second the remaining structures of the margins of the wound. 8. Drainage in such cases is unnecessary, and should be dispensed with.—Medical Progress.

#### READING NOTICES.

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For catalogue, write Rochester Lamp Co. New York.

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with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; hence the preparation is of great value in the treatment of mental and nervous affections. From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE-CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisible that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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# NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,

GEO. GILLETT THOMAS, M. D.,

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#### 

American Therapist.....

LEADING NOTICES ....

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## NORTH CAROLINA MEDICAL JOURNAL.

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#### ORIGINAL COMMUNICATIONS.

SOME REMARKS RELATIVE TO THE STATE BOARD OF PUBLIC CHARITIES AND COUNTY CHARITABLE AND PENAL INSTITUTIONS.

By WILLIAM H. COBB, Jr., M.D., Chairman of Section of State Medicine and Medical Jurisprudence.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

Great and growing have been the demands requiring the permanent establishment and maintenance of a State Board of Public Charities, and its supervision in a general sense over all Penal and Charitable Institutions in the State; and it is indeed gratifying to know that we can now point with pride to such an organization,

and feel that through these trusted agents, safeguards of mercy and justice, our poor and afflicted will be kindly dealt with and shielded from all harm, and our criminals will not be abused, but shall be protected and humane consideration vouchsafed unto them.

Irregularities, mismanagement and abuses will creep into public institutions of every country; North Carolina is no exception to this statement; nor are we as a people more prone to these ill uses than our neighboring States, but human nature is very much the same the world over, and the "flesh is  $w \in ak$ " when subjected to temptations.

North Carolina, ever foremost in good works and noble deeds, and early recognizing the necessity for State supervision in the control and management of all charitable and penal institutions within her borders, was not slow to make provisions whereby this object might be attained, and in Article 11, Section 7 of our State Constitution we have the authority for the establishment of a Board of Public Charities, "to whom shall be entrusted the supervision of all charitable and penal institutions, and who shall annually report to the Governor upon their condition, with suggestions for their improvements." It was not, however, until 1869 that the General Assembly "proceeded by concurrent vote to select five electors, who shall be styled the Board of Public Charities of the State of North Carolina"; and at one time so much authority was vested in this organization that no change could be made in the management of State institutions without the advice or consent of this Board; but this act has been repealed, and wisely so, I think, as its enforcement could not but engender dissatisfaction, but would necessarily produce a division of anthority.

The history of the existence of this Board of Charities, in its labors of love and efforts for the amelioration of suffering humanity, from its first organization until now, would be but the portrayal of a struggle for life under great disadvantages and almost insurmountable difficulties, with but little manifestation of appreciation by our law-makers and with very little assistance and cooperation from the people at large. It would be but the repetition of known facts and a trespass on your valuable time were I to attempt to recount the many trials encountered and the signal failures made in trying to accomplish the purposes for which they were created, all because they had not the funds necessary to meet absolute

expenses in carrying on their work. These facts and others pertaining to this subject were most graphically set forth in an able paper by Dr. K. P. Battle, Jr., read before the Society at its annual meeting at Elizabeth City, in 1889.

Suffice it to say that, though having to labor under adverse circumstances, it still exists, and is to-day an honor to our State, and has accomplished more this year than ever before in the history of its existence.

Heretofore the Board was empowered to meet four times annually, viz: in January, April, July and October, and if it was deemed proper and necessary, more frequently, and yet provision was made for payment of expenses of only one annual meeting; but the last General Assembly, evidently appreciating more fully the responsibility of their labors, repealed these restrictions, and members are allowed their actual expenses for each and every meeting, and as a great deal of work falls upon the shoulders of the Secretary, he is allowed compensation for the time actually engaged in attending to the duties of his office and the cost of all stationery used.

While probably it was contemplated that they would meet quarterly, it is now quite likely that only semi-annual meetings will be necessary, unless the development of unexpected causes should require more frequent sessions, which of course will be regulated by the members of the Board.

The Board of Charities, in obtaining the desired information, have adopted an admirable method whereby they can learn directly of the conditions and management of institutions under their surveilance, and that is by sending out the following notice to different gentlemen in the various counties who are known to be men of good standing and excellent character, asking their coöperation and assistance in acquiring the needed information.

"Dear Sir:—In pursuance of authority vested in the State Board of Public Charities to inspect the several penal and charitable institutions throughout the State, by the members of said Board, or "otherwise," it has been determined by the Board that the most effective method of proceeding would be the organization of visiting committees of three citizens in each of the counties of North Carolina. To this end the Board asks the coöperation of

humane and patriotic citizens to assist in the effort to ascertain the condition and management of all jails, poor-houses, work-houses, etc., in each county. No compensation is proposed for this service. It will not be requested of any but citizens of high character and public spirit, who will be willing at certain periods to visit the institutions named, and exercise a moral supervision over their conduct and operations. Will you kindly accept this charge for your county? It is proposed to forward to you blanks with suitable inquiries, to be answered by the officials in charge, and returned to this office. These will be of great value in ascertaining the true condition of the institutions named within the State.

"It is not believed that the moral effect of personal visits from influential citizens in each county can be surpassed by any other form of inspection or superintendence.

"The Commissioners of Public Charities receive no compensation for their own services, and therefore consistently ask the aid of their fellow-citizens in a duty imperatively needed in our midst. It will be perceived, on reflection, that no board of a limited number could adequately perform it in person; nor could the work of paid officials (even if there were funds appropriated for said purpose, which is not the case) be comparable with the labors of public-spirited citizens inspired by pity for the unfortunate and patriotic devotion to the best interests of the people.

"If you will accept the chrrge in behalf of your county, please sign and forward the enclosed postal card. If your engagements do not permit you to accept this position, will you kindly forward to the Board the name of some citizen whom you will suggest, and who could probably serve?"

[Signed by the Secretary of Board of Public Charities.]

Having secured the services of the desired number of citizens, blanks containing the following questions relative to the "homes for aged and infirm" (formerly "poor-houses") and work-houses and jails are forwarded them to be properly filled out and returned to the Secretary of the Board, as indicated in the notice of instructions they receive:

- 1. Please state the situation of the "Home for the Aged and Infirm," and how far from the county-scat.
- 2. Give the number of buildings, size of each, and state of what material built.

- 3. How many rooms in each building?
- 4. How are the buildings ventilated?
- 5. What are the means of protection?
- 6. How is the supply of water furnished for drinking, cooking and bathing purposes?
  - 7. How are the buildings heated in winter?
- 8. How many inmates can be comfortably accommodated with the present arrangements?
  - 9. How many are now in the care of the institution?
  - 10. How many of these are able to work?
  - 11. How many are helpless or bed-ridden?
  - 12. How many are in voluntary confinement?

[Note.—If any work-house is attached to the Home, please give all particulars that would correspond with these questions under "Remarks," or on a separate sheet.]

- 13. Please give the names of such persons belonging to the Home as are under involuntary confinement, stating if insane, imbecile, or idiotic, here or on list attached to this report.
- 14. What is the amount and kind of food allowed daily to each inmate?
- 15. What is the average weekly cost of maintenance of each inmate?

[Note.—If this question cannot be answered, for any reason, please give the aggregate cost annually to the county for three years past, with the average number accommodated, if practicable ]

16. State if any veteran soldier is an inmate of the County Home, and if so, please give name, regiment and company, and whether in receipt of pension or not.

[Note.—This is not for publicity, but the information is requested for the benefit of the veterans.]

- 17. What is the name and postoffice address of the keeper or overseer of the Home?
- 18. What pay does he receive, and is his compensation in money altogether, or are there any perquisites?
  - 19. Is he industrious, sober and discreet?
- 20. What is the name and address of the physician who attends the inmates?
  - 21. What does he receive for his services?
  - 22. How many inmates were in the Home on December 1, 1891?

- 23. How many admitted since that time up to March 1, 1892?
- 24. How many deaths during that period, and from what diseases?
- 25. How many discharges from other causes?

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- 26. How many inmates assist in any part of the farm or garden work?
- 27. How many could be employed in any light work for their comfort or pleasurable occupation and the benefit of the Home?
- 28. If any could do some light work, such as the making of small articles, what do you recommend, and what amount of means, if any, would be required to start and maintain the same?
- 29. Give a general description of the premises. Are they well arranged, neat and in good condition, or dilapidated and out of repair?
- 30. How many acres of land belong to the Home (formerly known as the "Poor-House Tract"), and what is the quality of the land?
  - 31. How much is in cultivation, and what stock is kept?
- 32. What crops are raised on the land, and how are the products used?
  - 33. What vegetables are raised for summer and winter use?
  - 34. Are houses and yards protected by shade-trees?
- 35. Are the ashes and manures saved and used in improving the land, or any green crop of peas or clover turned under for that purpose?
- 36. Is any provision made for religious services on Sunday, or any other day? If so, to what extent, and by whom?
- 37. Are there any children in the Home? If so, why? If any of these are capable of taking care of themselves now, or soon? have any steps been taken to assist them, or to place them in orphan asylums, or private homes?
- 38. Has any punishment been afflicted upon any inmate since admission? If so, upon whom? By whom? What punishment and for what offence?
- 39. Is there any system of out-door relief to the poor for support in your county?
- $40.\ \mbox{If so, how many persons}$  are thus supported, and at what average rate?

#### Remarks.

[Left blank for any additional information.]

#### QUESTIONS CONCERNING PRISONERS AND PRISONS.

- 1. Of what material is your county prison built?
- 2. Is it fire-proof?
- 3. What means are there for extinguishing fire?
- 4. What is the size of the building?
- 5. How many stories high, and how many rooms or cells for prisoners?
  - 6. State the size of the rooms or cells and number placed in each.
- 7. Are the windows closed or in any way obstructed? If so, how and why?
  - 8. Are there any means of ventilation except by the windows?
  - 9. What are the means of heating the building in winter?
  - 10. Are the prisoners subject to much suffering in cold weather?
- 11. What amount of bedding and covering is allowed, and is furnished to each prisoner?
- 12. What part of the prison is occupied by the male, and what part by the female, prisoners?
  - 13. How often is cool drinking-water furnished during the day?
  - 14. What is the daily allowance of food to each prisoner?
  - 15. What means are used to preserve the cleanliness of the jail?
  - 16. What disposition is made of the excrement?
- 16. Is the prison free of vermin? If not, what steps have been taken to secure that result?
- 18. Has punishment been inflicted on any prisoner since confinement? If so, upon whom? By whom and by what authority? What punishment and for what offence?
  - 19. Are the prisoners allowed to have intoxicating liquors?
- 20. Do the prisoners receive any ministerial services on Sunday, or at any other time?
- 21. Please give the number, color and sex of prisoners now in confinement; also offence, and date of confinement, and term if sentenced.
- 22. Please give the number, color and sex and offence of all prisoners under confinement from December 1st, 1891, to March 1st, 1892.
- 23. How many deaths during the period above named, and from what cause?

Remarks.

[Left blank for any additional information.]

Unfortunately for the ultimate purposes desired, I am informed that there is a feeling of indifference, if not antagonism, manifested by some of the County Commissioners and Superintendents of Health, upon the grounds that these "vigilant committees" of citizens, if I may be pardoned for terming them such, are in a measure usurping their work and transcending their authority. Now, never was there a graver mistake made, for the sole purpose and object of these citizens is to ascertain all the facts relative to the care and management of the charitable and penal institutions, and act in conjunction with the regular authorities in bringing about a better condition of affairs generally, and abolishing any and all irregularities that may be found to exist. It is always known by the superintendents of these institutions when they may expect a visit from a committee of the Grand Jury or the County Commissioners, and any abuses or irregularities, if such did really exist, could be easily suppressed or hidden from view during these short, superficial, and oftentimes imperfect, examinations; whereas this tendency is in a great measure overcome by the unexpected and assiduous visits from one or more of these officially appointed citizens.

In many of our county institutions a comparatively good system of management prevails, the patients are supplied with proper diet suitable clothing, but there are many, and I fear they are in the ascendancy, where nothing but the poorest and coarsest food is provided, and almost no attention paid to its preparation and variation, and the inmates clothed with the scantiest of garments consistent with decency and civilization.

In this connection it seems to me greater good could be accomplished and better results obtained, if more care was paid to these vital necessities. Another matter deserving of great attention is the personal and general hygiene of these unfortunate beings, for if "eleanliness be next to Godliness," then there are many of them, I fear, who, if they ever possessed any of the divine in their nature, cannot now lay claim to that attribute.

In visiting a county home on one occasion, I was very forcibly struck with one of the inmates whose appearance was repelling from the large amount of "real estate" he carried on his person, and propounding a question as to the frequency of his bathing, he he informed me that "he washed about once a year." And this, too, not far from many of our homes, and in this century of en-

lightenment and civilization. Gentlemen, is there not great need for improvement and a systematic supervision in some of our institutions? In a home of one of our western counties there is confined a lunatic, "harmless and incurable," who, under the influence of her delusions, is guilty of incoherent actions and language, and to correct this woman she is whipped or thrashed by the authorities of the place as though responsible for her actions caused by a diseased mind. This case, I am gratified to say, was brought to the knowledge of the Board of Public Charities through a member of the "Citizen Committee," and steps were immediately taken to prevent the further perpetration of this outrage upon an unfortunate woman devoid of reason; and yet, I dare say, it was done through ignorance and not with the intention of maltreatment or cruelty. Other incidents might be cited showing the necessity for better and more intelligent management of these institutions, but are not necessary.

Before concluding this subject there is a suggestion which I wish to make relative to the county criminals and their employment on the farms in connection with the county homes.

All of us recognize the necessity for the establishment of work-houses in every county within our State, and my suggestion would be this, viz: Have each work-house established in close proximity to the "Home for the Aged and Infirm," both under the management and supervision of one superintendent, and let all criminals sentenced to terms of imprisonment for ten years and under, be sent to these county work houses, and under the security of guards, made to labor on these farms, and thus be a source of revenue to the county, in that their labors support the county poor, and in a great measure make the work-house and home self-sustaining.

Several counties within the State have established work-houses and derive a great deal of service from the labors of their inmates, many of the convicts being used in improving public roads, but it seems to me preferable that they should be made to work on the farms, and thus be self-sustaining and support the poor and afflicted inmates of the homes, a great majority, if not all of them, being

unable to do manual labor, save of the easiest kind.

In conclusion, I shall indeed feel gratified if these incidental observations shall bring more forcibly to your minds as physicians the necessity for improvement in the management of these institutions, and elicit your hearty cooperation and influence in behalf of any agency which has for its ultimate purpose the accomplishment of this object.

#### REPORT ON THE PRACTICE OF MEDICINE.

By J. W. McNeill, M.D., Chairman, Fayetteville.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

My first duty is to express my very high appreciation of the honor conferred upon me in being selected as Chairman of so important a Section as that of the Practice of Medicine. This branch of our study comprehends everything pertaining to the knowledge and cure of disease, and is the focus, or concentration of all the other branches of study. The Practice of Medicine extends in every direction, to the very boundaries of human imperfections and sufferings. And the practitioner must ever bear in mind that the great aim of his calling is not merely to learn the nature of the human frame or organs, or to know the normal functions of these, or the morbid conditions which affect them, or alone the remedies to be used in practice, but the chief object is to prevent, alleviate and cure diseases.

Forty years ago, when Dr. Williams announced that his practice would be restricted to the treatment of eye and ear diseases, it needed courage to face the universal condemnation and denunciation of the medical profession. Now, no organ of the living body is deemed so small as not to need the laborious work of well-trained investigators, who may, by diligent application, find out some of the many hidden wonders of creation. This has made the body of knowledge under the term Practice of Medicine so copious and complex that it requires diversity of cultivation that it may be fully mastered—no one mind, however endowed, being equal to the task of compassing all that has been ascertained by the work of the specialists.

With these facts before us, it could hardly be expected that, in my notes on the Practice of Medicine I could more than give a general outline and touch upon only a few special points.

The Practice of Medicine is far from perfect: the fact that each one has his own method indicates instability and doubt. For example, Professor W. A. Hammond, in the treatment of weak heart,

recommends that large doses of digitalis be administered—2-drachm doses of the infusion at first, and if we desire to obtain the fullest possible benefit from its use, it must be given in increasing doses. He does not believe in what is called the cumulative effect of this drug.

Professor A. L. Loomis, dwelling upon the use of this drug, says that there is no other drug which requires so much skill in its administration. The best results are obtained from small doses: for example, only 1 or 2 drops of the tincture; if more be given, only a single dose at bed-time. That the ingestion of more digitalis than is requisite to overcome the insufficiency does positive harm. With the leading lights in the medical profession, in this nineteenth century, differing so widely in the treatment of diseases and the use of old remedies, it is evident that every practioner must draw his own conclusions as to the real value of remedies and their mode of administration. It is not surprising, the tendency of the present day to therapeutical nihilism, after physicians have seen the danger in following the leadership of unsafe guides in their ill-directed and reckless medication. The influence of some of our most prominent medical thinkers has been opposed to the value of medicines in the treatment of disease. But the true student of the practice of medicine has been able from his elevated and broad standpoint to draw many valuable deductions from these things, and one of the most valuable is, that man is greater than his disease, and in administering to him a living being is under treatment, and not simply a disease to contend with and subdue. The thorough thinking practitioner can see over and beyond the heroic work of the reckless leader, and also of those whose tendency is to do nothing, leaving everything absolutely to nature. And as a balance-wheel he has regulated all the machinery of the practice of medicine and been the cause of a steady movement forward of the wheels of progress.

The bacteriologists have been at work. Special micro-organisms have been more thoroughly investigated. Koch's method for the cure of tuberculosis had our hopes raised to a high pitch a year ago; the introduction of this method we had hoped might mark a new era in the advance of bacteriology and the treatment of disease, but within the last year there have been no new developments in his plan of fighting the bacilli of tuberculosis.

The typhoid fever bacillus has been investigated by Janowski. He has studied the effect upon this organism of sunlight, various temperatures and nutrient media. He has not, however, succeeded as yet in finding any diagnostic signs by which this organism can be differentiated.

Drs. Espine and Marignac have presented an interesting article upon the bacillus of diphtheria. They found the bacillus of Hoeffler in all cases of this disease. Brieger and Fraenkel have demonstrated the existence of a ptomaine produced by the bacillus of diphtheria. A change of opinion has of late taken place as to the nature of pneumonia, which is now almost universally regarded as a specific infectious disease, depending upon a micro-organism. The diplococcus pneumonia of Fraenkel is the most constant organism in lobar pneumonia, and is now believed by many competent authorities to be the specific agent of the disease.

While the etiology of all diseases has been rendered more complete and more easily understood by the work of the bacteriologist, the therapeutist has not been idle in the study of antisepsis. As these special organized germs have been found to take an essential part in the diseased process, if not to produce them, the group of remedies which are destructive to the germ without injuring the vitality of the human being, have been more thoroughly investigated and understood. Though specifics in medicine, even in this group, are as yet very few.

B. F. Ackley has used the biniodide of mercury with asserted success in the treatment of diphtheria and typhoid fever, and believes the drug to be an antiseptic and germicide of great value. For diphtheria he has employed this formula: Biniodide of mercury, grain ij, saccharated pepsin 3 iij. The powder is used as a local solvent and germicide, placing a quantity of it, proportionate to the age of the patient and the severity of the symptoms, on the tongue every hour. In this way the drug was found to have a germicidal effect on the membrane, hastening solution of the exudation even in severe cases; the symptoms subsiding in the course of twenty four hours. In cases of typhoid fever, especially if the treatment was instituted early, the drug has produced such satisfactory results that in no case has a patient been confined to his bed for a longer period than two weeks. For the treatment of this disease a mixture of 1-10th to 1-12th gr. and 10

grains of saccharated pepsin was given every four or six hours. C. R. Illingworth has been able to abort searlet fever in five instances by the internal and external use of the biniodide of mercury.

The preparations of mercury still retain the lead as therapeutical agents in destroying the germ peculiar to any disease after it has once taken hold. The intra-tracheal injections of creasoted oil has been thoroughly investigated by Dor. His conclusions are that a strength of 1 to 20 is admirably borne by the majority of patients. Thirty-one minims may be injected twice a day. No complications provoked by the use of the injections were ever observed patients never had hæmoptysis, fever or stitch in the side, which could be attributed to the medicine, and digestive troubles were not produced analogous to those seen when creasote is administered internally. Olive oil, sterilized by boiling, should be employed as an excipient. It is possible to determine whether the oil has reached the diseased part of the lung by the production of bubbling râles. In the majority of cases under the influence of this treatment expectoration diminished, pain in the side disappeared, appetite returned and weight increased. It is principally tuberculous patients in the first or second stage who are benefited by the treatment; for patients with numerous cavities it would be much better to choose an antiseptic more powerful than creasote in treating by this method-camphorated naphthol appears to answer this purpose.

The specific action of the micro-organisms in disease is now attributed, in large part, to the formation of ptomaine, and the whole question of immunity and protection is now being worked out in this direction, a special stimulus having been given of late in the discovery by Hankin of the so-called defensive alkaloids. The Klemperer brothers, by the subcutaneous injections of the filtered bouillon cultures, or by the injection of the glycerine extract, found that immunity from pneumona was produced, and that the blood serum of a subject having this power of immunity, when injected subcutaneously into a patient actually suffering from the disease, very promising results were obtained.

The subject of fever and antipyresis has been ventilated considerably within the last year. Cantani claims that fever is an essential, and, to a certain degree, a beneficial reaction to acute disease. This reaction is necessary to bring about cure. The temperature alone is not a measure of the gravity of the disease. A

moderate degree of fever may be due to a want of reactive power on the part of the organism, a high degree to the energy with which the organism defends itself against the invasion of the disease. The fever itself, therefore, has a favorable effect, and may be of use in various ways-by diminishing the vitality or virulence of the living causes of disease, and by raising the temperature of the tissues and of the blood, by altering the nutritive soil in the tissues, and rendering it less favorable for the growth and development of the germ of disease, in fact, by sterilizing the body. The proper remedies for fever should be such as act on the cause of the disease. In this way quinine acts in malaria and mercury in syphilis. The antipyretic remedies, as antipyrin, have no special action on the cause of fever. They lower temperature by increasing radiation of heat from the body, and diminish heat-production. They do harm by interrupting the course of the fever, diminishing the means of defense of the human organism, for a diminution in the production of heat is equivalent to a diminution of the vitality of the human organism and of the power of resistance. There are, therefore, no general antipyretics. The most that can be done is to diminish the accumulation of heat in the febrile body without lowering the production of heat. To this effect the cold bath, the cold pack, cold douches, the administration of large quantities of cold water, either by the mouth or enema, are recommended.

Maragliano records the results of a series of investigations as to the state of the vessels in fever and in antipyresis. Kairin, antipyrin, thallin, salts of quinine and salicylate of sodium were used in the experiments. It was determined that antipyretics in general caused vascular dilatation, which continued in the case of fever as long as the influence of the remedy continued. Osler says that antipyrin, antifebrin and phenacetin have had a thorough trial, and in many forms of fever, although they still have their advocates, the general opinion of clinical physicians seems decidedly against their systematic employment.

Venesection has to some extent occupied the attention of physicians. The reproach of Van Helmont, that "A bloody Moloch presides in the chair of medicine," cannot be brought against the present generation of physicians. During the first of this century the profession bled too much, but during the last decades we have certainly bled too little. Osler, in his recent practice, says pneu-

monia is one of the diseases in which a timely venesection may save life. Richardson records the case of a woman with symptoms of peritonitis and a temperature of 109° F., in which he withdrew 22 ounces of blood from a vein of the arm after antipyretic remedies had been freely administered without avail. The temperature fell to 101° F., and for a time the urgent symptoms were relieved. The improvement continued for about four hours, when, despite assiduous treatment, the temperature again rose to 109° F., and death soon followed. The clinical lesson to be drawn from these observations is that, while the removal of blood, as well as the use of the ordinary antipyretics, have the effect of reducing the febrile heat, they do not control the process of zymosis on which the febrile condition depends.

In enfeebled conditions of the heart and in debilitated conditions generally nitro-glycerine has been shown to be a wonderful remedy. Its more lasting effect over that of nitrite of amyl renders it a more reliable remedy in extremely enfeebled conditions. C. D. Palmer asserts that he has cured a case of heart trouble with the drug. The patient had a fatty organ, whose action was irregular and feeble, but there was no valvular lesion. A drop of a 1 p. c. solution, three times a day, was administered, and gave immediate relief. J. N. Cleveland reports the case of a woman 65 years of age with an irregular heart, very bad general condition, and almost dying from uramic poisoning and cardiac failure, relieved by the administration of drop doses every hour of a 1 p. c. solution of nitro-glycerine. A case of asphyxia from gas, successfully treated by hypodermic injections of nitro-glycerine, has been reported by C. W. Goss. It was an extreme case. Hypodermic injections of 1-100 gr. were given every ten minutes. Half a minute after the first dose the pulse began to be noticed at the wrist and grew gradually stronger, and at the end of fifteen minutes consciousness had returned and the patient expressed himself as being quite well. The deduction can properly be drawn from cases of this kind that the prime medication in such cases is to establish the action of the heart, no artificial respiration being necessary, as the breathing always improves with the increase in volume of the pulse.

The recent recurrence of influenza has developed considerable discussion in the literature of the past year. The study of the meteorological conditions under which it prevailed has strengthened

the theory that humidity of the atmosphere has much to do with its development. Maurel emphasizes the preference of influenza for low countries and the valleys of large rivers. Kowalki describes influenza as a specific disease, occurring under conditions constantly the same, due to atmospheric influences and complicated by the pathogenic germs at hand. No special new forms of bacteria were discovered which there is any reason to believe have anything to do with causing the disease. There is no recognized specific against the disease. Quinine more nearly approaches this position than any other remedy. Eichhorst, with subcutaneous injections of pilocarpine, had strikingly speedy and successful results. He says that pyrexia may be met by cold sponging, cold affusion, the cold pack or the cold bath. Antipyrin, antifebrin and kindred remedies were largely used during the epidemic. Giovanni, however, wisely warns against the use of the ordinary antipyretics in the treatment of influenza because, though they may lower the temperature, they debilitate the vital powers of the patient. He recommends rather tincture of strophanthus with milk and brandy, and in grave cases inhalations of oxygen and subcutaneous injections of strychnine.

Hypnotism of late has been extensively used and experimented with in many nervous conditions. It will probably be more and more recognized by the medical profession in the future as the horizon of scientific investigations in the psychical realm broaders

In conclusion, I would suggest, after reviewing the field of matter embraced under the head of The Practice of Medicine, that each practitioner, from his own experience in the treatment of disease, must draw his own conclusions as to the real value of remedies, and be slow to adopt every new wind of doctrine that comes to us, not to follow, unthoughtedly, the rush of the tide of popular practice; but, being founded on true principles, to study the utility of drugs when rightly administered, and, above all things, to find the limits of their utility, for he who is unmindful of the injury done by reckless medication is on as unsafe ground as the most pronounced therapeutical nihilist. Also that the study of the materials of Nature and her forces be as thoroughly excented as that of the study of Materia Medica.

#### A FEW PLAIN WORDS ON GLAUCOMA.

By Richard H. Lewis, M.D., Surgeon for Diseases of the Eye, Ear, Throat and Nose to St. John's Hospital, Raleigh, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

The relatively large number of cases of absolute and hopeless blindness from neglected glaucoma coming under my observation has suggested to me the propriety of making an effort to do something in the way of prevention of such sad occurrences. Blindness from this cause is peculiarly deplorable for the reason that the afflicted one is not only cut off from all perception of light even—a deprivation that only the blind who retain the power of discriminating between day and night can fully appreciate—but is a sufferer in many instances from repeated and long-continued attacks of severest pain. So that, if, by what I shall have to say, I prove to be the indirect means of saving not more than one person from such a fate, I shall feel that this imposition on your patience was not without justification.

Before going further, I wish it to be distinctly understood that in using the expression "neglected glaucoma" I did not mean to indicate an intention to lecture my brethren of the general profession, because, as a matter of fact, I believe that, in most instances, the patient is to blame. But I cannot in candor say that it is always the patient's neglect. It must be admitted that, sometimes, the failure of the physician first consulted to make a correct diagnosis, which, it should be said, is not always an easy matter, consigns a curable case to hopeless and life-long darkness. Consequently, since the best informed amongst us is liable to become more or less rusty in his knowledge of a disease that is so rarely brought to his attention as the one we have under consideration, it would not be amiss to emphasize a few salient points bearing on its diagnosis and early management. I shall not attempt to draw a complete and finished picture of the malady, filled in with minute details and nice touches, but a simple sketch, made with a few broad strokes, representing only the essential features manifest to the ordinary medical observer. And so, a citation of the ophthalmoscopic signs, and all discussion of its etiology and pathology, as well as the consideration of whatever is exceptional, will be purposely omitted as not coming within the limited scope of this paper.

For our purpose it would be best to consider only the three ordinary forms of the simple or chronic, the subacute and acute inflammatory. The symptoms common to all forms are, failure of sight, increased tension or hardness of the eye-ball, dilated pupil, and contraction of the visual field, especially towards the nose. The most characteristic of these is increased tension, which is to be ascertained by gently palpating the globe through the upper lid as the patient looks at his feet, very much in the same way as for pus in a suspected abscess. If not familiar with the feeling of the normal eye, a comparison should be made with the other eye, if unaffected, or with the examiner's own. The next most important symptom is dilatation of the pupil, particularly if it does not respond to light. A fact of great assistance, in a negative way, in helping to a correct diagnosis, is that the subject of glancoma is almost sure to be past middle age, or old enough to wear spectacles for reading. And the first thing one suffering with chronic glaucoma, as a rule, notices, is that his spectacles do not suit him as well as they once did, and that he cannot find any that will bring his sight up to the original standard. The need for frequent changes in his glasses is often a premonitory sign. He will then complain that at times there is a fog or haze over his sight, lasting for a greater or less period, and then passing off entirely for awhile, only, however, to return again at shorter intervals, denser in character and hanging over him longer. While this fog is present he will tell you, usually, that when he looks at a lamp or other light it seems to be surrounded by colored rings, haloes or rainbows-a phenomenon only found in glaucoma, except when produced by mucus on the cornea, which can be easily removed by winking. Pain, if present at all, will be slight and occasional. A superficial inspection of the eye will show the sclerotic white, the cornea clear and bright, and, in a word, the eye perfectly normal in appearance, save a slight dilatation and some sluggishness of the pupil. The tension will probably be a little increased, and the field of vision somewhat narrowed.

In the subacute form, after, in all likelihood, a few premonitory attacks embodying the symptoms just enumerated as belinging to the chronic, there will be a more rapid failure of sight—pain in, but chiefly around, the eye, over the brow, in the temple, down the

side of the nose, and, sometimes, all over that side of the head, will be complained of—the globe will be very distinctly hard—there will be some redness of the ball, of a rather dusky character, most marked just behind the selero-corneal junction—the cornea will look rather steamy—the anterior chamber will generally appear shallow, the pupil will be dilated and probably oval in shape, and, instead of being black, it will be of a yellowish green color.

The acute form is simply an exaggeration of the subacute. The onset is more rapid—the tension greater—the pain more severe—the redness more intense, in some instances extending to the whole conjunctiva with swelling of the lids—occasionally there is photophobia—the pupil is more widely dilated, though not necessarily ad maximum, and fixed—the cornea looks more hazy and is insensible to the touch of a light, soft object, as a feather or wisp of tissue-paper—and sometimes there is fever with nausea and vomiting. Inasmuch as the mistake has been made, I will take the liberty of saying that, should you have a case of supposed remittent fever, who, at the same time, has a bad eye, do not be satisfied with your diagnosis until all doubt as to the nature of the ocular trouble is removed, and do not wait for him to recover from the fever, or "bilious attack," before attending to his eye.

The diseases with which inflammatory glaucoma might be confounded are, iritis, conjunctivitis, cataract, inflammation of the cornea and neuralgia. There are many resemblances between acute iritis and acute glaucoma, and there are many differences, but the similar features, unfortunately, are of a coarser and more easily recognized character than the dissimilar. In order to avoid confusion, I will rest the differential diagnosis on two symptoms, or signs, only-the state of the tension and of the pupil. While in iritis the tension is sometimes slightly increased, it amounts to practically nothing, but in glaucoma it is the pathognomonic symptom, and in the inflammatory form-with which alone iritis could be confounded-it is almost certain to be very distinct and pronounced. The pupil in iritis, if changed at all in size, is smaller than the normal, but in glaucoma it is almost invariably larger than natural, and, in an immense majority of cases, very much larger. If in doubt, compare with sound eye, should there be one, or with a healthy eye in another individual of about the same age and in the same light. Never fail, therefore, to examine more carefully the

pupil in every red eye belonging to an elderly person, and particularly if that eye be free from a muco-purulent or purulent discharge—the presence of this discharge being the characteristic symptom of conjunctivitis. In conjunctivitis the redness of the globe increases from before backward, while in glaucoma, as well as in iritis, just the reverse is true. In conjunctivitis, too, the sight is scarcely, if at all, impaired—in glaucoma it is apt to be very bad.

The change in the color of the pupil, together with the dimness of sight, is suggestive of cataract; but the fact that the loss of sight has been more or less rapid, the signs of inflammation, congestion and pain nearly always present, certainly in the severer forms, and especially the dilated and fixed pupil, signify plainly that the case is not one of simple cataract; while, if the tension be increased, in addition to the above, it settles the question, proving that it is not only not cataract, but is glaucoma.

The only symptom of glaucoma calling to mind keratitis is the haziness of the cornea, but it is slight and generally and evenly diffused, not patchy, as it always is in inflammations of the cornea. The opacity in interstitial keratitis, which, by the way, it should be remembered, is a disease of childhood, although diffused, is denser in some parts than others—the cloud has thin places in it. Again, in affections of the cornea, photophobia and lachrymation are prominent symptoms—in glaucoma they are secondary, if not altogether wanting.

Although in neuralgia of the ophthalmic branch of the trifacial lachrymation with redness of the conjunctiva and occasionally photophobia as well as sensations of dazzling light and colors are not infrequently present, the differential diagnosis is not difficult, even when they are. In the neuralgic affection vision is practically unimpaired, the pupil is normal in size or smaller than asual, the tension is not increased and the sensations of light are subjective and different from the rings or haloes of glaucoma that appear to surround the lamp or other point of light looked at.

It is of vital importance that glaucoma and iritis should not be confounded with one another, for the remedy appropriate to each is generally positively injurious to the other, in some instances actually exciting an attack in a healthy eye predisposed to that particular affection. If the pupil be carefully examined and its size noted the mistake in the application of remedies could not well be made, for it is the most elementary common-sense, it seems

to me, for any one using remedies directed to the pupil to attempt to contract a pupil that is too large and to dilate one that is too small. Attention to this simple rule would insure practically the use of a myotic, eserine sulphate or pilocarpine muriate, in glaucoma, and a mydriatic, atropia sulphate, in iritis.

Having made the diagnosis of glaucoma its early management is very simple. It consists in the immediate use locally of a myotic, sulphate of eserine, a drop or two of a solution of a strength varying from one to four grains to the ounce, or pilocarpine of double that strength in the eye, every hour until the pupil contracts, pain is relieved and sight improved, and continued afterwards three or four times a day until the trouble has passed off. Hot applications, purgatives, hypodermic injections of pilocarpine, etc., are sometimes helpful, but such uncertain palliatives should never be depended on, except only when nothing better can be done. Should the pupil not respond to the myotic and a marked alleviation of the symptoms occur in twenty-four hours, or if its use increase the pain and inflammation, as it sometimes does, an iridectomy or sclerotomy, preferably the former, in my opinion, should be done at the earliest possible moment. Acute glaucoma is a disease that allows no dallying in its treatment—the price of sight is promptness—and, eserine or pilocarpine failing, the knife is the only hope.

My experience with eserine, while very much mixed, has been, on the whole, encouraging. One case is sufficiently striking to deserve reporting, and the following is a brief account of it:

Mrs. N. J. M., set 33, was sent to me by my friend Dr. Thomas F. Wood six years ago. At the time of her visit the left eye was entirely blind, presenting the symptoms of absolute glaucoma with scleral staphyloma. She stated that the trouble began in that eye eighteen months before. The right eye was normal in every respect, including acuteness of sight and amplitude of the field of vision, except that the anterior chamber was too shallow, the pupil plainly larger than it ought to bave been, and the tension slightly increased. But she had had some premonitions similar to those leading up to the disastrous consequences shown in the left eye, and she was wise enough to seek advice in time. She was given a solution of eserine, reënforced with boracic acid to preserve it, instructed as to its use, and thoroughly impressed with the vital importance of returning immediately for operation should the eserine fail. It worked like

a charm, and for three years sight continued fully up to the standard, but a time came when it did fail, and, true to instructions, she promptly returned for further advice. Her good eye then presented all the symptoms of subacute inflammatory glaucoma, and vision was reduced to an ability to count fingers at a few feet. Thinking that her drops might have lost their efficacy from age, a fresh twograin solution of eserine was tried before resorting to operation, and the attack was quickly relieved and sight completely restored. Since then her attacks, returning as they have from the beginning in a mild form, usually two or three times a week, have been effectually aborted by the eserine, and when last seen, eight months ago, her eye was in excellent condition with one serious exception, namely, a severe attack of follicular conjunctivitis. Whether the fungoid formations in old solutions that had undergone decomposition excited the inflammation, or it was the result of the longcontinued use of the alkaloid I do not know; not improbably the latter, however, as other observers have noticed the same condition after prolonged use of eserine. The effect of atropia on this line is familiar to all, and the persistent instillation of cocaine has been known to cause conjunctivitis granulosa (follicular?) In a letter written just one week ago to-day she says: "My eye improved rapidly after seeing you last, the attacks not averaging more than one once in three weeks up to the present. Within a day or two it looks a little inflamed, but am not suffering very much. Have not had an attack in nearly a month. Can read No. XX at the distance of twenty feet. I continue to use one drop once every day; also use it when I have an attack (more freely she means). P. S .- I forgot to tell you I have had a few times of frequent attacks since I saw you." This case is interesting and instructive for several reasons: the comparative youth of the patient (33), the great frequency of the attacks, two or three a week most of the timeas confirming the opinion that the long-continued employment of eserine will excite the follicular form of conjunctivitis-but chiefly as showing the efficacy of that drug in the treatment of this most dangerous disease of the eye, and that, too, when used once every day, or oftener, for so long a period as six years.\* But it

<sup>\*</sup>Just after reading this paper I had the gratification of seeing Mrs. M. and finding her eye in excellent condition, notwithstanding a pretty sharp attack the day before—the first in a month. Save a slight shal-

must be borne in mind that this is a very exceptional case, and that in many instances eserine is entirely without effect, and in some positively injurious. Still it has been known to finally cure some cases, and is, unquestionably, of very great value as a palliative, often relieving the urgent symptoms and saving the eye until more radical treatment can be obtained. Indeed, eserme and pilocarpine. it may be said, are the only medical remedies for glaucoma. And so, every practitioner-certainly those not prepared to do an iridectomy-should make it a point to see to it that either some druggist within reach keeps them, or that he has a small quantity of one or the other of them in his own medicine chest. As eserine deliquesces very easily, it would probably be best to keep it in hermetically sealed glass tubes or in the more elegant form of gelatine discs. Before leaving this subject it is proper for me to add that I have never had any personal experience with pilocarpine in glaucoma, because I have always thought it safest to rely on eserine; but, in the opinion of some it is, if used in double strength, just as effective, and it certainly should be tried if the eserine cannot be obtained.

As a corollary to the above I would say: Every person old enough to wear spectacles, complaining of an impairment of sight not remediable by a change of glasses, should seek medical advice. And especially should this be done if he notices variations in vision, sight being at one time hazy and at another clear, or if he has observed the haloes or rainbows around the lamp. The fog in

lowness of the anterior chamber it was normal in every respect-vision up to the standard and the optic disc not in the least cupped. The follicular conjunctivitis present when seen eight months before had disappeared under the use of a simple borax lotion prescribed at that time in spite of the continued instillation-daily, if not more frequentlyof the eserine collyrium. From this fact I am confident that the conjunctivitis was excited not so much by the long-continued use of the alkaloid as by the impurities resulting from degenerative changes in the solution. I questioned her again as to the character of the frequent attacks, and she stated that they were accompanied by dimness of sight, dilated pupil, hardness of the globe, as well as she could ascertain, and the haloes around the lamp, and were therefore truly glaucomatous. I shall try to wean the eye from the myotic by substituting pilocarpine, the weaker of the two, for the eserine, and gradually diminishing the strength of that. LATER: Pilocarpine was tried, but did not act as well as eserine.

glaucoma generally lifts entirely at times, or it rapidly becomes dense, while in cataract it is always present and deepens very slowly. But just here comes in the main difficulty alluded to in the beginning, and that is, that the party with the cloud of blindness hanging over his life will not seek advice until it is too late, deluding himself with the theory that it is merely a little "cold in the eye," and satisfying himself with "alum curds," rotten apples and such other—"rot."

Fortunately glaucoma rarely ever attacks both eyes at the same time, and consequently it is more than probable that some physician will be seen, if not for that, for some other trouble, before the second eye is involved. If so, and the first eye should be found to have been lost from that disease, he should feel it to be his impera tive duty to impress upon the patient, as forcibly as possible, the fact that the same trouble is practically sure to occur sooner or later in the good eye, to insist upon his seeking medical advice upon the very first signal of danger, and to warn him of the fearful consequences of delay. Having lost an eye he will be more ready to listen to advice. But there is a rock that sometimes shows in this latitude on which the medical mariner, inexperienced in sailing ocular seas is liable to make shipwreck, and we must mark it plainly on our chart. That rock is secondary cataract-cataract coming after, and consequent upon, the glaucoma. The danger consists in attributing the blindness to the cataract, instead of to the glaucoma, its real cause, thereby permitting the patient to sink into hopeless darkness under the false impression that his trouble is one that can be almost surely relieved, and at any time, after he has become completely blind, that may best suit his convenience. It is true that in most instances the second eye has been ruined before the first becomes cataractous, but it is a danger nevertheless. We will mark it by calling attention to the fact that in cataract secondary to glaucoma the pupil is dilated and does not contract on exposure to bright light, the perception of light indeed being generally lost at that stage of the disease, while, in simple idiopathic, or primary cataract, the pupil is normal, or, if slightly dilated, quickly and promptly responds to variations in the amount of light, the perception of which is good. This would be sufficient to base an opinion upon, but hardness of the globe, enlarged tortuous vessels on its surface and the history of the case would be confirmatory.

Another reason for being careful to make the distinction between ordinary senile cataract and that consequent upon glaucoma is that, by so doing, the patient may be saved, perhaps, a long and expensive journey with bitter disappointment at the end of it.

How to overcome the main difficulty, namely, the carclessness and indifference of the person most interested, is, I confess, a question hard of solution. The only thing I can suggest is for the profession to attempt the education of the people—planting a seed here and there—by calling attention whenever occasion may arise to the fact that any elderly person with marked impairment of sight beyond the aid of glasses and accompanied by any symptoms whatsoever other than a very slowly increasing dimness, shows a reckless disregard of one of God's choicest blessings if he do not promptly obtain the opinion of his physician as to its nature.

DEATH OF DR. WALTER COLES, OF St. Louis, Mo.—The saddest of all deaths occurred August 7th in the suicide of Dr. Walter Coles. He took his life with a pistol, leaving a note stating his was a case of euthanasia. He was rapidly losing the use of his lower limbs: "Under such circumstances there was nothing left for me but to make my exit." What a sad death, what a reckless rejection of God's promises. There can be no euthanasia from a pistolshot by a suicide. There is abundant hope for every paralytic, sufferer from locomotor-ataxia, or any disease, however vexatious. Looking at the poor little part we play in the care of patients, and then looking up at the Great Physician who teaches us how to live, how to be sick and how to die, our calling, with all its vast improvements, is but the work of an apprentice, but even that may be so blessed as to be almost miraculous. There is but one enthanasia and there is but one remedy that brings us to it-that is, the precious blood of Jesus Christ our Lord.

THE THERE STAGES OF THE MEDICAL STUDENT'S LIFE.—The late Dr. Henry Gawen Sutton, of London Hospital and College, was in the habit of dividing up medical student life into three stages, as follows: "First, he doesn't know; second, he thinks he knows, and then he doesn't know, but he stands on his feet like a man, and gives confidence to his patients."—Jour. Am. Med. Assoc'n.

#### SELECTED PAPERS.

#### THE TECHNIQUE OF THIERSCH'S SKIN GRAFTING.

By Theodore Dunham, M.D., New York.

The elegance of the result in skin grafting depends on nice attention to certain details. The size of the area that can be covered depends largely on deftness in the operation, and largely on careful preparation, so that no time may be wasted. In the following brief sketch I have tried to map out the operation as it may be done for covering considerable areas of skin deficiency.

Preparation of the Wound Surface.—The surface to be grafted should be one of normal tissues. A recent wound surface, whether from injury or operation, needs only perfect disinfection and then douching with salt solution. A surface of granulations requires more preparation. Wash it every second day with soap and water, and bichloride 1-1,000, and dress with iodoform gauze saturated with balsam of Peru. Dress thus until the surface is level, rosy and firm. This may require two weeks. A few hours before operation apply a wet bichloride compress.

Preparation of the Thigh for Removing Grafts.—The thigh is the most convenient part of the body from which to take grafts. Which thigh is chosen will depend on which side of the table gives the operator the readiest access to the wound to be covered. The day before the operation the thigh should be shaved, scrubbed with soap and water and with bichloride, and wrapped in damp bichloride gauze. Shortly before operation wash with salt solution and apply a salt gauze compress, and cover this by two bichloride towels applied as follows: Let the lower edge of one come below the knee, wrap it around the extremity and secure it by a bandage round the knee; lay the upper edge of the other towel at the grain, wrap it round the extremity, and secure it by a bandage passed round the highest part of the thigh. These towels protect the dressing until operation; at operation they are quickly folded back, one up, the other down, the gauze removed, and the skin is exposed, snugly bordered by bichloride towels.

Instruments, Solutions and Dressings .- Use a razor ground flat

on one side. For an operation of any magnitude there should be two razors, for the edge gradually loses its keenness. A flat retractor with a rounded edge serves well for scraping off granulations. For removing cicatrized borders and scraping irregular surfaces the Volkmann spoon is convenient. A probe is an aid to the fingers in adjusting the grafts. A pair of rough bathing mittens should be boiled an hour and placed in salt solution. A quarter of an hour before the operation the instruments should be laid in 1-20 carbolic acid. Before being used they are dipped in salt solution. Throughout the operation the only solution is one of sodium chloride in water, 6-1,000. Two large tin pails of this solution should be made a few hours before operation and boiled an hour; one should be allowed to cool, the other kept hot. At operation a bowl of this solution will be wanted for sponges, another for the grafts. These should be kept at body temperature, which can be maintained by mixing from the two reservoirs. There should be a third bowl of salt solution for the hands. For the dressings sterilize loose gauze by soaking it over night in bichloride 1-1,000. Sterilize a few gauze bandages in the same way. Before operation place a portion of each in salt solution. Cut strips of gutta-percha tissue three-quarters of an inch wide and long enough to reach across the wound and lap over on both sides. Wash them with soap and water, soak over-night in bichloride 1 1,000, and place them in a dish of salt solution.

Position of Patient on Operating Table.—Place pillows beneath the patient's hips, back and head, and place a rest beneath the leg so that the thigh may form a bridge half a foot above the table. If the area to be grafted is upon an extremity, suspend the extremity vertically.

Operation.—Give ether. Surround the field of operation with bichloride towels. Disinfect the hands with especial thoroughness. Scrape off all granulations and cicatrized borders with the edge of the retractor and the Volkmann spoon. Wash clean with salt solution, and at once apply a compress of salt gauze and bind it on tightly with a gauze bandage to check oozing. Throw back the towels from the thigh. Let an assistant, with the rough mittens on his hands, grasp the thigh on either side and draw the skin tense. The operator places his left thumb on the skin at one end of the thigh to steady it, lays the razor apon it at a slight angle, makes a

sawing motion, and at the same time increases the angle until the razor bites into the skin. As the sawing motion is continued, a graft is shaved off comprising a third or half the thickness of the skin. It may be made nearly the length of the thigh. The widest grafts are got from the comparatively flat surface over Scarpa's triangle. Place the graft in a dish of lukewarm salt solution. Continue for ten minutes cutting grafts and putting them into the salt solution. Then remove the compress from the surface to be grafted. Oozing will have ceased. Apply the grafts to the surface. They will have curled, the raw side turned in. To uncurl them, place one end on the surface to be grafted and uncurl it. Now, by laving a finger on the graft and making a rapid to-and-fro motion the graft can be made to uncurl continuously along its entire length. Once flat, the graft may be removed to the position desired by the fingers, and more delicate adjustments made by the probe. If the borders of the surface are abrupt, let the grafts run up the borders and lap over the surrounding skin. Let the edges of the grafts lie in apposition or overlap. Thus cover in the whole area. Wash off any blood by letting salt solution trickle gently from a sponge over the grafted area. Now take a strip of the gutta-percha tissue. Lay one end on the sound skin at one side of the wound and place a thumb upon it; then, with a winding motion, lay it across the wound. Let the next strip slightly overlap the first. Apply strips thus slightly imbricated until the whole grafted area is covered. If the area is upon an extremity, take a bandage from the salt solution and make a snug spiral over the gutta percha tissue. The grafts will now be all in perfect position and secure from disturbance by the further dressings. Wring ganze lightly from the salt solution and apply it. Cover it by a sheet of gutta-percha tissue to maintain moisture. Apply a layer of bichloride gauze and of absorbent cotton and a bandage. Immobilize by splints suitable to the region. On an extremity coaptation splints are the best.

The pearly-white cozing surface from which the grafts have been taken is best dressed, according to Dr. Abbe's recommendation, by covering it with a sheet of gutta-percha tissue. Beneath this a new epidermis forms in the course of week, and the dressing need not be disturbed during that time.

Subsequent Dressings.—The grafted area should be dressed every

second day. The same strict aseptic precautions are observed as at the operation. The gutta-percha strips are removed as follows: Pick up one end of a strip and curl it back sharply upon itself; strip it from the grafts beneath, keeping it all the while sharply curled. By observing this manœuvre all danger of lifting or of shifting the grafts is avoided. Douche the surface with sterilized salt solution. Sponge off the strips of gutta-percha tissue in bichloride solution and rinse them in salt solution. Dress exactly as at the operation. On the second day the grafts will be rosy. Any abrupt margins will have become reduced and the surface be nearly flat. After the tenth day no dressing is required; but it is well to wear a cloth spread with vaseline for a few days longer.

Using the foregoing technique, I have covered an area of seventytwo square inches in two hours, including the dressing. This is at the rate of one minute and three-quarters to a square inch. Smaller areas would require proportionately more time.

Case.—C. A., a Russian girl of 12 years, fell on the curbstone and was injured by the wheels of a passing ice-cart. From the right lower extremity was torn a flap comprising skin and subcutaneous tissue. It involved an area on the inner side of the thigh, knee and leg, and extended outward beyond the ligamentum patellæ and crest of the tibia. She was carried unconscious to her home. The accident occurred August 19th, 1889. The wound was dressed and the lmb confined in splints. In October the knee was assuming a state of partial flexion. A plaster splint was applied, beginning below the wound and extending to the roots of the toes; and another above the wound, extending to the top of the thigh. The two were rigidly united by an arch of iron, so shaped as to bring the limb into a straight position. This extension caused no great pain, and the more perfect immobility gave relief.

On November 23d I grafted the area, using in all essentials the method described above, and taking the grafts from the opposite thigh. The girl's general condition was poor, and, rather than prolong anæsthesia beyond an hour, I refrained from completely covering the denuded surface. When the granulations have been scraped away the surface brought to view consisted of the deep fascia everywhere except over the tibia, and here the periosteum was bare. The outer one-third of this surface, comprising the portion external to the ligamentum patellæ and crest of the tibia,

was entirely covered with grafts. The inner two-thirds of the wound was not entirely covered, but was spotted with grafts, leaving intervening spaces about half an inch wide.

The immediate cessation of pain after the operation was striking. Before operation she had great pain at every dressing, and usually had to be held on account of her struggling and cries. After operation, and at all subsequent dressings, there was no pain whatever On the eighth day the portion external to the ligamentum patellæ, which had been completely covered, had a soft, pliable integument, with a tracery indicating the margins of the grafts. The isolated grafts were proliferating at the edges, and granulations had sprouted between them. In four weeks the area was firmly healed. The splint was soon removed. There was scarcely any motion at the knee. A cylinder of sheet lint, spread with vaseline and stiffened by a covering of oiled muslin, was suspended round the limb to guard it from harm. From time to time moderate force was used to aid flexion at the knee. In March, 1890, the knee came to a right angle, and she went upstairs one foot after the other.

Photographs taken in May, 1892, nearly two and a half years after operation, show the perfect result obtained.

The following points in regard to Thiersch's method of skin grafting are brought out by this case:

At once after operation there is relief from pain and all excretion from the wound stops.

The surface is covered by a soft, healthy integument.

No cicatricial contraction follows. The motion of the knee in this case is perfectly normal.

The grafts are not thick enough to include hair bulbs. The hairs sprout again on the surface from which the grafts have been taken. On the grafted surface no hair will grow. Hence grafts might be taken from a hairy thigh and used upon the hands or face without fear of transplanting hairs.—Post-Graduate.

QUINQUAD has confirmed Unna's statement as to the presence of a special microbe in soft chancre. It is a bacillus with rounded ends, and is generally arranged in chains. It is present in prodigious numbers in the lymphatics and intercellular spaces.—Med. Review.

### GUNSHOT INJURIES TO THE EYE—THE POSSIBILITY OF THEIR MORE CONSERVATIVE TREATMENT.

By George Ferdinands, M.D., C.M., Abed.

The shooting season invariably confronts us with the pros and cons of enucleation by its presentation of cases where doubt is entertained whether a foreign body exists in the eye or whether the injury sustained by that organ is sufficient to demand its removal. Professor Theodore Leber, in his recent address before the Ophthalmological Society, very lucidly demonstrated how different chemical substances seem to possess different pus-producing qualities depending upon the amount of irritability each was capable of producing. We are told that "purulent inflammation set up by the action of chemical substances has not the same power of extension as that due to the action of microbes." This is an important statement, and its importance is enhanced, since clinical observation strongly supports Professor Leber in his further remark that "the inflammation caused by chemical agents remains more or less limited to the affected area." These facts, viewed in conjunction with the theory of germ transmission along the lymph channels of the optic nerves, undonbtedly demand a reconsideration of the bases generally accepted as justifying enucleation. Especially is this so in those eases where only an aseptic inflammation may with reasonable grounds be anticipated. Such reconsideration may lead to modified measures in a large proportion of gunshot injuries to the eye. A shot is a comparatively aseptic body, and usually produces little disturbance when lodged in the eyeball. In these cases the period of observation might with safety be prolonged. In fact, the hasty removal of eyes thus injured is to be deprecated. An attempt should be first made to extract the foreign body from the exudation around, from which, as suggested by Professor Leber, cultivations may be made, to discover the septic or aseptic nature of the injury. Another advantage from delay may be gained in cases where doubt exists as to the presence of a shot in the eye. The following instances which have come under my own observation may exemplify this.

Case 1.—R. B, in August last, had his left eye struck by a spent shot. The case was seen by me a week after the accident. The upper eyelid was slightly swollen and ecchymosed, and right in the

centre, nearer the nasal end of the lid, was a well-marked wound, almost healed. It was difficult to judge whether the wound had extended to the whole depth of the lid. Beyond these there were no perceptible signs of external injury. V. = barely 6-60, and on examination the fundus showed a large subretinal hæmorrhagic patch below the macula lutea, i. e., just on a line with the wound on the evelid. The appearance the hæmorrhage presented was certainly suspicious, for it consisted of a dark central spot, slightly elevated, and surrounded by an irregular zone of a lighter shade. The vitreous near the hemorrhage was slightly hazy. No other evidence of internal injury could be noticed in spite of careful examination, especially of that part of the fundus lying adjacent to the injured eyelid. The hemorrhage retained its character and size for over three weeks, and then suddenly became absorbed in a few days, leaving only pigmentary traces, and when the case was last seen V = 6.6.

Case 2.-A. M. was also accidentally shot just below the left eye, one centimetre from the lower lid, where there was a well-marked punctured wound, almost hidden by the swelling externally; the appearance round the eye was that of a typical "black eye." On careful palpation, rendered difficult by the swelling, no foreign body could be felt beneath the skin. The eyelids were with difficulty separated, and the external examination of the eyeball revealed only slight subconjunctival hæmorrhage towards the outer side. The examination of the fundus proved difficult, especially as the pupil was small; but a distinct subretinal hæmorrhage could be made out a little way below the disc. Ice and atropine were ordered. After three days the swelling subsided considerably, and a thorough examination of the fundus revealed only the single hæmorrhage seen before; it presented, however, the same peculiar appearance of a dark, jagged central spot and a lighter zone around it. On palpation over the wound a week after the accident the presence of a pellet embedded deep beneath the skin in the subcutaneous tissue could with a little trouble be felt. This discovery removed all doubt as to there being any foreign body in the eye itself. The hæmorrhage rapidly diminished in size and density, and a fortnight after the accident vision had improved from the perception of only fingers at 6 feet to 6-12.

Case 3.—I am unfortunately unable to give precise notes of this

case. A few years ago I was asked to assist at an enucleation. As far as I can remember, the history of the case was as follows: About a month before the date of operation the patient, while out shooting, was accidentally shot in the face. He distinctly felt something strike the eye. On examination there was either no apparent wound of the eyeball or only a slight abrasion. However, a well-marked hemorrhage near the disc was easily recognized, looking very much as if a foreign body was lodged in its centre. The case was carefully examined from time to time by two medical men, but the persistence of the hæmorrhage without any apparent diminution of its size or density only served to confirm the suspicions entertained that the foreign body was present; and as the patient and his relatives were anxious about the matter, it was decided to remove the eye. This was done, and on examining the eyeball no foreign body was found, neither was there much evidence of any hæmorrhage left.

The first two cases were evidently instances of mere concussion of the eyeball, the hæmorrhage being caused by contrecoup. In fact, injury to the fundus by this peculiar phenomenon is by no means uncommon, and is especially noticeable in blows or injuries received over the eyeball. The third case must have been identical with the two former. It may have been a case in which the shot had traversed the eyeball and entered the orbit, but there seems not to have been sufficient evidence to suggest this. The case serves to show how necessary it is that a final examination of the eye should be made immediately before it is excised. Had too precipitous measures been adopted in the first two cases useful eyes would have been unnecessarily sacrificed.

The whole subject is replete with difficulties. Each case has to be treated on its own merits, and consequently depends on the judgment of the surgeon who has had drilled into him all the dangers of sympathetic ophthalmitis, and who naturally resorts as early as possible to extreme radical treatment. It is well, therefore, to remind him that there are certain cases which do not require these radical measures, and that they can only be recognized by an extension of the period of observation usually considered necessary in such cases—London Lancet.

### THE DOCTOR'S TEMPTATIONS.

### [Editorial in the Pacific Medical Journal.]

The pitfalls which the devil places in the path of the young medical practitioner are many, and it behooves him to keep ever humming that good old Methodist hymn, "Yield not to temptation."

Dazzled in early youth by the stylish equipage, the beautiful residence, the elegant offices, the wealth, the honors and the highsounding titles of Dr. Sapomollis, the able and energetic Professor of How-to-get-practice in the leading medical school, he may have chosen the profession of medicine as a bee-line to worldly success; but he soon has impressed on him the unselfishness of its votaries, and by daily association with his teachers the new-kindled all-forthe-good-of-humanity-self-sacrificing ambition's faint and flickering spark is fanned into an all-consuming flame, and, after graduating, it may be at the head of his class, he hangs out his shingle and sits down in his office with vain-glorious notions of the physician's noble calling, waiting patiently for the opportunity to exercise his humane benevolence. But day succeeds day, and week follows upon week, nay, months may roll by, and yet the poor suffering creature whose pain he so longs to alleviate, cometh not. One of his neighbor's children is taken down with measles, but his classmate, Dr. Brazen, is called in, who, when a consulation is requested, suggests Dr. Sapomollis. At last the point is reached when he can no longer pay his washer-woman, the landlady threatens to evict him, the restaurant-keeper refuses him his twice-a-day chicory decoction and doughnuts, his watch is left at the "Uncle's" for safe keeping, and sleeping on a wooden table with Gray's Anatomy for pillow and a few old newspapers for covering, his philanthropic ardor is chilled, and if it were not that Drs. Sapomollis and Brazen might reap the golden harvest, he would plant typhoid bacilli in every well in town.

At this juncture a beautiful young woman "in trouble" comes with tears in her eyes and gold in her purse imploring him to help her. He wavers, but humming again to himself, "Yield not to temptation, for yielding is sin. Each victory will help you some other to win," he straightens himself up, and kindly, but firmly, says, "No," and then, not having tasted food for forty-eight hours, sits down, shuts his eyes, and tries to imagine savory pieces of roast

beef gliding down his cesophagus by the aid of a cup of fragrant tea. But, what joy! Salvation at hand! The Secretary of a lodge, with nearly two hundred members, notifies him that he has been elected their physician at a salary of \$2.00 per year for each family. On the strength of his wonderful luck the restaurant-keeper even trusts him for a mutton-chop and a cup of chicory decoction. Soon after he finds himself being constantly called, night and day, for even the slightest ailments, but in the case of serious illness he is made to understand that if he were not paid by the year, they would prefer some one else. Thus he has to swallow many insults, and soon loses self-respect.

As he has a chance to write many prescriptions, the lodge-druggist comes and offers him a large percentage if he will only order cheap drugs in eight- and twelve-ounce mixtures, well diluted, tablespoonful doses; and as he knows that he is not only inadequately paid for his services, but insulted in the bargain, he does not scruple to conspire to defraud those who have treated him so shabbily.

As outside patients begin to come in, they are also requested to go to the druggist indicated on the prescription, because he is "absolutely safe and reliable." From accepting percentage on prescriptions there is but a step to other methods of cheating, as calling trivial ailments by terror-inspiring names or performing needless operations. A physician who can persuade his patients that every sore-throat is diphtheria, every slight bronchitis consumption, and every case of summer diarrhæa he is called on to treat, cholera, or a surgeon who can persuade every woman who has borne children that she has a lacerated cervix that must be sewed up, and that she is the only one who knows how to do it properly, will, it is easy to see, gain both fame and fees.

From systematized robbery to murder is hardly a step, and as the crime of homicide is well paid for, and detection difficult, the sympathetic or soft-hearted, but impecunious, practitioner needs both principle and fortitude to resist a woman's tears and gold.

The wiliest tempter, however, is the greedy, unprincipled, oily, smooth-tongued, flattering society paper fiend who comes to you with pictures and so-called biographical sketches of your former ideal, Dr. Sapomollis, Dr. Brazen and all your other professional friends, and wants to write you up, but in truth will drag you down. Beware of him!

### WHO IS COMPETENT TO PRESCRIBE GLASSES.

By G. MELVILLE BLACK, M.D., Denver, Col.

The above title would naturally indicate that glasses are being prescribed by people pursuing different callings. What I mean by prescribe is that they have their eyes examined, and are advised to wear glasses for the correction of some refractive error. We find this work being done by oculists, opticians, jewelers and a few druggists in some of the smaller towns throughout the State. It is not my intention to arraign any of the above for their actions, but to show that great injustice is being done to a certain number of our patients by unqualified parties who are trying to act in the capacity of oculist. An oculist should be a graduate in medicine and thoroughly familiar with the diagnosis and treatment of general diseases from actual experience. They should have sufficient training on the various diseases and refractive conditions of the eve to render them capable of conducting such cases understandingly. It is frequently said to me Professor —— has been to one town and has put glasses on half the children in the place. If we stop a moment and consider we will see why. This "Professor" has no right to make a charge for examination, because he is not recognized by the laws of our State as a man qualified to collect such fees. A child is brought to this man, and, after making an examination to the best of his ability, he informs the parent that the child needs glasses. Of course he says so. What is he there for? If he does not give a pair of glasses he does not get anything out of the case. In consequence we find a great many wearing glasses who do not need them. We also find an equally large number wearing an improper correction of their refractive error. These so-called professors, the optician, and the vendor of glasses gene rally, are not allowed to use a mydriatic to suspend the action of the ciliary muscle, The laws of our State, fortunately, have confined the prescribing of such drugs to a profession who understand their physiological effects, their modes of application, the limitations to their use, and who know how to combat any untoward spmptoms from such use. It is an impossibility to properly estimate the refraction of even a very small percentage of children without first having suspended the action of the ciliary muscle by the use of some mydriatic. Therefore, if such be the fact, and I think all of my colleagues here will bear me out, a vast majority of children wearing glasses which have been prescribed without the eyes having been tested under a mydriatic, are wearing an improper correction, and in all probability had much better be without glasses.

We find the hypermetropic eyes wearing minus glasses, or those that are suited to myopia. We find hyperopic astigmatic eyes wearing minus cylinders; myopic and astigmatic myopic eyes wearing from two to ten times the amount of their refraction. Such incompetent work is a great drawback and a detriment to ophthalmology. The laity generally does not make a distinction between the so-called professor, the optician and the oculist. The incompetency of one is laid at the door of the other. I am not sure that the layman is alone at fault in this matter. The medical profession is at fault. A large number are too careless as to whom their patients consult for such work. The family physician is naturally the first one to be made acquainted with the many ills of his patient, and often when toll of the trouble Jessie and Tommie are having with their eyes, he informs the parents that they had better have the eyes examined, that they probably need glasses. Instead of directing the parent to take the child to some competent oculist, they are allowed to go to some optician or traveling shark. The doctor notices a few weeks after that Jessie and Tommie both are wearing a pair of beautifully made gold-rimmed glasses, probably elaborately engraved, as were the frames from one shark who sunk his teeth deeply into the unsuspecting public by virtue of the carelessness of some of the profession of Denver. Soon the mother comes again and says: "Doctor, Tommie and Jessie are no better." The disciple of Æsculapius looks grave and gives his "neverfailing" tonic. The tonic gone, still Jessie and Tommie are no better. A large number of the patients we get consult us through the advice of some friend or the family physician, after the optician and the "tonic" have failed.

Another reason why the prescriber of glasses should be a graduate in medicine is, various ocular diseases and systemic disorders, both organic and functional, are first manifested by asthenopia, photophobia and amblyopia, and an early diagnosis of the eye lesion might save the sight, and, in many instances, the life of the patient. The trouble is, we do not get these cases until they have

been through the hands of the optician and traveling sharks of the country, and have a different pair of glasses from each one as well as a half dozen or more pairs selected themselves from some jeweler or drnggist, and the main part of their history consists in relating to you these facts. An examination of the case reveals glaucoma simplex, albuminuric retinitis, optic neuritis or optic atrophy, toxic amblyopia, specific choroiditis, etc. Had we seen the case when the first optician saw it, a great deal might have been done. It will be noticed that I have confined myself to the difficulty of properly estimating refractive errors in children. I have done so because therein lies the greatest grievance against the optician. They should never attempt to fit a child with glasses, and the rule should hold good up to thirty years of age, for up to that time the accommodation is very active and they do not relax it readily, and in consequence make little of their refractive error manifest.

The optician's work is supposed to be that of adjusting frames to the face, which is a very important thing, and grinding the lenses as prescribed by the oculist. He stands to the oculist the same as the druggist to the general practitioner. You say the druggist has more or less prescribing; he puts up proprietary medicines with his name on them, which "claim to cure all ills flesh is heir to," and hands them out to every one coming in complaining of these ailments. I admit this is the case to a certain extent, but it does not make it right. The whole matter is wrong. Several very competent men in the State have told me they prefer to dispense their own medicine in preference to sending their own prescription to a druggist who does this.

The same way with many of the oculists here, they prefer sending east after their glasses rather than patronize the local opticians. Prescribing druggists and opticians who fit children and young adults, are doing our patients and ourselves an injustice, and in the long run their bank account will convince them of their error. I do not mean to say that all opticians prescribe glasses. In the east reputable opticians confine themselves to filling oculists' prescriptions and other work pertaining to their trade. But I believe the opticians in the west fit almost everything that comes along, unless it is an unusually tough one. Let the family physician look to whom his patients consult about their eyes, and by so doing the laity will soon learn to differentiate between the competent and

incompetent men. The optician will soon find himself dependent upon the oculist for his work, and will so regulate his actions that it will be a joy and a pleasure to send our prescriptions to him, to get the annoyance of fitting the frames off of our hands. Then it remains for the general practitioner to start this much needed reform out of justice to the oculist, and to insure more competent work to their patients with eye troubles.—Medical Mirror.

### TREATMENT OF APPENDICITIS.

Dr. Senn arrives at the following conclusions:

- 1. All cases of catarrhal and ulcerative appendicitis should be treated by laparotomy and excision of the appendix as soon as the lesion can be recognized.
- 2. Excision of the appendix in cases of simple, uncomplicated appendicitis is one of the easiest and safest of all intra-abdominal operations.
- 3. Excisions of the appendix in cases of appendicitis before perforation has occurred, is both a curative and prophylactic measure.
- 4. The most constant and reliable symptoms indicating the existence of appendicitis are recurring pains and circumscribed tenderness in the region of the appendix.
- 5. All operations should be done through a straight incision; parallel to and directly over the execum.
- 6. The stump after excision of the appendix should be carefully disinfected, iodoformized and covered with peritoneum by suturing the serous surface of the execum on each side over it with a number of Lembert stitches.
- 7. The abdominal incision should be closed by two rows of sutures, the first embracing the peritoneum, and the second the remaining structures of the margins of the wound.
- 8. Drainage in such cases is unnecessary, and should be dispensed with.—Medical Progress.

A New Cause of Measles.—An English health officer recently received the following note: "Dear sir, I beg to tell you that my child, aged eight months, is suffering from measles as required by Act of Parliament."

### EDITORIAL.

### THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

THOMAS F. WOOD, M.D., Wilmington, N. C., GEO. GILLETT THOMAS, M.D., " Editors.

Original communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the Journal, by sending the address to this Office. Irompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to Thomas F. Wood, M.D., P. O. Drawer 810, Wilmington, N. C.

### DR. THOMAS FANNING WOOD.

In our last issue we announced to our readers the death of our colleague, Dr. Thomas F. Wood. He died quite suddenly a short while after noon of the 22d day of August, 1892.

In the spring of 1885 he accompanied the Penitentiary authorities on a tour through the camps of the convicts then at work on the Western N. C. R. R. in the mountains. It became necessary for him to carry his heavily-packed travelling bag up a steep ircline—on the mountain-side. At the end of the climb he experienced a stabbing pain in the right side, but a few moments rest dissipated it, and he thought no more about it. During the early part of the

following spring the pain returned, and a diagnosis of aneurysm of the aorta in its ascending portion was soon easily made out. At the request of his medical friends in Wilmington he went to New York and had the best advice obtainable there. The diagnosis was confirmed and treatment advised directly in the line already adopted, to stay in bed for a year or more absolutely, regulating his diet to simple farinaceous food and milk, and for medicine to take iodide of potassium. This advice he strictly followed, and he was in his bed for eighteen months and adhered to the prescribed diet and medicines rigidly. His restoration to his work was a source of thankfulness to his hosts of friends, and hopes were entertained that his life would be spared until old age should terminate it. Whenever he attempted to do more than an easily accomplished amount of labor, he was disabled and was forced to bed to recuperate again. About two years ago he began to show signs of decadence in his strength and was easily fatigued by any unusual strain upon his physical powers. This increased, and as his end came nearer, he grew more and more decrepid.

In the midst of all these obstacles, with a certain knowledge that he was the victim of a fatal injury, he kept up his spirits and maintained an office work that was surprising in amount. It embraced not only his professional work as a private practitioner, but also the onerous duties of the Secretary of the State Board of Health. His death came suddenly, being preceded by a day and night of painful dyspnæa and a pulmonary congestion due to pressure.

He was born in the city of Wilmington, North Carolina, on the 23d of February, 1841, and received only such an education as the high schools of the town in those days afforded. As soon as he left school he became a clerk in a drug store and was taught by a competent master all that was then known of the character and use of drugs. It is probable that here he first was impressed with the desire to study medicine. He was the private pupil of the leading physicians of this town at different times, and the writer knows with what affectionate and tender sorrow he watched one of these, dying as he was of a malignant diphtheria. It was as the gruef of a son at the bedside of his departing father, and the words of sympathy and comfort that he had for the grief-stricken family are treasured as mementoes of his friendship and love. It was during

this pupilage in a preceptor's office that the civil war began. He threw aside his books and volunteered as a private in one of the companies raised in this city-afterwards Company F, 3d North Carolina Regiment. After the transfer of his company to Virginia, he was detailed as hospital steward under Dr. Otis F. Manson, who had charge of the hospital for North Carolina troops. This change gave him an opportunity to attend the lectures of the Medical College of Virginia in Richmond. After one course of lectures, he was examined and assigned as Assistant Surgeon of the 3d North Carolina Regiment, with which command he remained during the rest of the war. He clung with great pride to his recollections of the gallant deeds of the Confederate soldiers, and his recital of the stirring events in which he participated was always enlivened by his love for the men with whom he served, and whose bravery and suffering for a cause they deemed just, was a frequent theme of his conversation. He came home after the cessation of hostilities and began the practice of his profession. The invading armies had left behind them in his native town an epidemic of small-pox, which grew to such an extent that it became necessary for the community's safety that a hospital be established for the diseased and indigent negroes who were here in flocks, largely without means of support and unable to care for themselves when overtaken by sickness. Dr. Wood undertook the work, and organized and carried on this hospital successfully. This work aroused in him a desire to study thoroughly the subject of vaccination, and the interest then awakened never waned. His library contains many rare monographs and books on the subject, besides all the standard and wellknown treatises, and his knowledge of all the literature of this important question was as extensive and varied as any man's in this country, and it may not be too much to say it equalled that of anyone here or abroad.

In 1868 he received the honorary degree of Doctor of Medicine from the Medical Department of the University of Maryland. He was the Secretary of the Medical Society of North Carolina, which office he held until 1872. In 1878 he was elected a member of the Board of Medical Examiners of the State, and was always one of its most earnest and useful members. In the same year, in connection with the late Dr. M. J. DeRosset, he began the publication of the Journal, of which he has been the real promoter and editor until

his sickness in 1886 made it necessary to have an associate. His intercourse with the leading medical men of the country and his extensive reading convinced him of the usefulness of organized sanitary work and of the necessity of State Boards of Health. In 1885 he succeeded in securing a statute from the Legislature creating such a Board for North Carolina, and it was fashioned after his wishes, modified, it is true, by the difficulties that always attend reform movements everywhere. Since the inauguration of this work, he sought to popularize it, and the monthly bulletin which he issued found appreciative readers, and became an accumulating store of statistics. This work as Secretary of the State Board of Health, and his manifest ability, caused him to be among the founders of the American Public Health Association, which included in its list of members not only professional men, but men who were interested in sanitary improvements, and willing to lend their countenance and help to the work. He was Vice-President of this Association in 1891, and would no doubt have been its President had his health allowed him to continue his active work in its ranks.

There was yet another field in which Dr. Wood was an eager student and worker, and in which his abilities shone with brilliancy. He began the study of botany quite early in life. Finding in it both pleasure and intellectual benefit, he pursued it with such zeal that he became an authority on all questions concerning plants in this State, and particularly those of this region. His correspondence will reveal his knowledge and the intimate acquaintance it established with the workers in this science. His collection of books on this subject, and his herbarium are ample testimony to his thoroughness in the prosecution of his studies. This knowledge led him to a prominent place in the Committee for the Revision of the Pharmacopeia, and Mr. Charles Rice, the Chairman of the Committee, writes that "his death is a severe loss to the Committee of Revision, particularly now, when the Materia Medica portion and botanical descriptions are being finally revised."

In the midst of a busy life—as a general practitioner and surgeon—and after his health forced him into more quietude, doing a large office practice, he found time to take part in all the work that was begun and carried on in his town that had for its object the elevation of moral and intellectual character. He was for years a

Director and supporter of the Library Association of this town, and was its President when he died. Out of his means he gave liberally, often lavishly, for its support, and he was an anxious and earnest friend of so worthy a cause. He was always forward in all matters of local interest, lending the weight of his character and influence to the furtherance of worthy designs looking to the promotion of health and the general welfare.

His tastes were all refined and cultivated, and in general literature of the highest order he found rest and recreation from the toils and weariness of his active life. Here, as elsewhere, his retentive mind quickly siezed the salient points and preserved for ready reference the best parts of the books that he deemed worthy of study. Few men of our acquaintance had a larger fund of knowledge and fewer still the ability he possessed of aptly and usefully applying it.

His nature was enthusiastic and at the same time gentle and kind. He was easy of approach, liberal and open-hearted, bearing no malice, despising wrong-doing and littleness, and while condemning the fault, he willingly and charitably forgave the offenders, with a full hope of amending their evil ways.

His suffering and patience were the outgrowths of a high Christian character refined in the crucible of pain and silent meditation. His Church relations were of the most liberal sort. He believed in the purity of religion, not in the worthiness of denominational differences. He was a consistent member of the Episcopal Church, and had no spark of intolerance or bigotry in him. He lent his aid and time to the dissemination of religious teaching whenever it came in his way to do so, and many a soul has felt the influence of his kindly advice and earnest Christian life and example. The death of such a man is a public calamity, and his loss will long be felt-To those of us who enjoyed his more intimate friendship, words but feebly express the grief that is ours, and we cherish all the memories of his days here as gifts that need to be preciously kept. His children have a rich legacy left them in the example his great character has made for them, and all the communities where he was known are the better for having been partakers of his life and his labors.

Surely his works do follow him, and there is yet alive among us

### OBITUARY.

At a meeting of the Wilmington Medical Society, held in the Director's Room of the Young Men's Christian Association, the following memorial of the late Dr. Thomas F. Wood was presented by the Committee appointed to draft it:

We meet to-night to tell each other and the listening public our estimate of the loss we have just sustained. Death has reached into our midst again, and taken away our chosen friend. In the calm repose of a Christian, Dr. Thomas Fanning Wood has laid down his work among us, and we sit as mourners for our loss. It is a fitting time to recall the virtues that have made his life so memorable. In his desire to serve his fellow-man he woke to an ambition that was guided by an honest heart and an active intelligent mind. Possessed in early life of none of the accessories that ordinarily are esteemed quite necessary to prompt success in professional life-a finished scholastic education, a store of wealth sufficient to set aside the groveling labor for the needs of life and hosts of influential friends, who would lend a helping hand to a deserving beginner, he saw in the life of a physician the road to preferment that is open and inviting to all of those who follow it conscientiously and willingly. He took an earnest hold upon the affairs of life as they presented themselves to him with a settled determination to succeed. There was no selfishness in his ambition. scope it included not only the praiseworthy projects he so eagerly sought to promote, but also a willingness to help all those who were inspired with the same high purpose as himself, to live and work for the great good of humanity. He had no petty ends to subserve, and therefore was never guilty of the baser means adopted by the smaller men to gain the objects of their labor. Enthused with the belief that a high moral character, the outgrowth of a genuine Christian faith and honest Christian work, was the first requisite to success in the life of a true physician, he entered on his labors as a leader true to his convictions, with all the zeal of a naturally hopeful disposition. There was in him an inborn and increasing dislike for everything that was unbecoming a true manhood. He lived largely in a world of letters, as well as actively participating in the management of such affairs as his professional life brought him in contact with, and he grew in the fullness of time to a magnanimity

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of disposition that was always liberal and made him easy of approach to all those who sought his aid, and assured them of his best efforts in their behalf.

He was a constant student of human nature and recognized the real value of men with wonderful accuracy. This highly cultivated trait of character made him easily accessible to the younger men in the profession, and his aid was always at their command, and when it was sought it was dispensed with such a kind and gentle way that its value was largely enhanced.

No man of our acquaintance had so thoroughly improved the opportunities that presented themselves as he did. Books of the highest value were his friends, and the riches of good literature were eagerly stored up in his retentive mind. In medicine he was always among the advancing students, seizing and applying the new truths as they were developed, sifting out the good from the worthless with striking discrimination, using the newer facts as they were brought out, and discarding the theories of busy but vain thinkers.

He was strongly imbued with a scientific instinct and had a questioning mind, and these led him early into the study of botany. To him the woods and fields were full of wholesome and purifying study and delight. They spoke to him of the wonders of nature, and taught him over and over the greatness of his Creator. The flowers of the field were often, therefore, his companions, and he knew them by name as a friend knows his friend of many days. In time this knowledge brought him the confidence of men who were seeking to cull the useless and unnecessary medicines from the lists, and to preserve only those of value and known efficacy. He knew the genera and species to which each of these drugs belonged, and their kinship to those whose reputation was established. It was in this special department, among so many others, that his counsel will be greatly missed. But in addition to this, he had time, or found it, to be of great use (how much we all know) as a journalist of the highest order, a sanitarian of the strictest sect, learned in the laws of health and their application; a physician of high repute, a man of letters, versed in history and literature. Above all these, he was an ardent disciple of the teachings of the holy religion that guided his life, and he gave his best efforts for this cause, and by example and precept he sought to do his part for the glory of his Master.

We have laid him to rest after his years of patient suffering. We have seen him through these years accept the burden of sorrow and pain that it was his lot to bear. We have known of his trust and confidence in the mercies of his God. We have watched with grieved hearts his decline, and been taught lessons of patience by his uncomplaining acceptance of the heavy hand that led him down to his grave, and we stand now as over his empty place among us—softening our grief with these memories of his useful life and triumphant death, bearing glad and willing testimony that the world is better for having such a life as his vouchsafed it.

"Blessed is the man who has the God of Jacob for his help, and whose hope is in the Lord his God."

Resolved, That this memorial be spread upon the minutes of this Society, and that a copy be sent to his family, with our sympathy. Resolved, That the proceedings of this meeting be published in the NORTH CAROLINA MEDICAL JOURNAL.

## MEETING OF THE NORTH CAROLINA STATE BOARD OF HEALTH.

### TRIBUTE OF RESPECT.

At a meeting of the North Carolina State Board of Health, held in the city of Wilmington on September 7th, 1892, the following preamble and resolutions were presented and unanimously adopted:

WHEREAS, The Almighty Ruler of the universe has seen fit in His infinite wisdom to remove from our councils our worthy Secretary and Treasurer, Dr. Thomas F. Wood; therefore be it

Resolved, That in his death our Board has sustained a great and irreparable loss, that affects not only its members, but also the well-being of our profession and of the people throughout the State as

Resolved, That we desire in this connection to place upon record our estimate of his long, faithful and efficient services in behalf of public sanitation in North Carolina, for we recognize that the North Carolina Board of Health had its inception through his labors and influence, and that it has been sustained and brought to its present state of efficiency directly by his personal endeavors and individual pecuniary sacrifices.

Resolved, That we desire, furthermore, to express our appreciation and admiration of his eminent services to the medical profes-

sion, for we are assured that, by his superior learning and marked ability, as much as by his pure and unblemished Christian life and character, he has dignified and elevated the profession in our State, and has earned for himself a name and influence that, reaching out to other States and countries, has reflected credit and honor not only upon his own profession, but upon his native State that he loved so well.

Resolved, That we desire to express to the family of the deceased our lasting and unfeigned sorrow, and assure them of our earnest

and heartfelt sympathy in this, their sad bereavement.

Resolved, That the Secretary of this Board furnish copies of the above, for publication, to the NORTH CAROLINA MEDICAL JOURNAL and to the newspapers of Wilmington, with the request that they be copied by the press of the State, and that a copy be also sent to the family of our deceased member.

### CUMBERLAND COUNTY MEDICAL SOCIETY.

### RESOLUTIONS OF RESPECT.

At the last regular meeting of the Cumberland County Medical Association the following memorial tribute was presented and unanimously adopted:

In endeavoring to express our appreciation of the loss which has come to us in the death of Dr. Thomas F. Wood, our friend and brother, we way well pause and ask, Are we capable of doing justice to him or ourselves?

His life has been no ordinary life; his end most perfect; and as we look back over the years since we have known him well, we see now the perfection of his character, the deep endeavor to do his full duty to God and man: to God, in that he walked with Him; to man, in that he labored day and night to fit himself for his daily work, so that he might go about doing good, though often his own pain and suffering were greater than that of those he sought to relieve.

We would as a Society commemorate his great zeal for his profession, and place on record our own deep sense of his worth and our unfeigned sorrow in that he is no more with us. And still, while we shall miss him and sorrow long, yet it is mingled with joy that God gave us the privilege of living close to him, and that

we can always feel that our profession has been elevated by his influence and ourselves made better men and physicians by his life and example.

While, then, we sorrow with those who loved him, we feel that in a life so complete there is left us a pleasant memory, which may lead us to emulate his life, so that we may all rejoice together in the Great Hereafter.

Joining, then, with the profession throughout the State in doing honor to his memory, we place this, our tribute, upon our records, as an expression of our love for him and of our loss at his death.

A copy of the above was directed to be sent to the family of the deceased, the North Carolina Medical Journal, the Fayetteville Observer and the Wilmington Messenger.

> James A. Hodges, M.D., President.

J. F. Highsmith, M.D.,

Secretary.

Fayetteville, N. C., September 1, 1892.

Sulphonal in Reflex Spasms.—Dr. Edward Andrews (Jouram. Med. Asso.) has found sulphonal in 15-gr. doses most useful in the arrest of cramps in fractured limbs and in reflex spasms from other causes. His attention was first drawn to this action of the remedy in the case of a patient who suffered very much from muscular cramps after a fracture of the femur. Morphine relieved the patient until drowsiness occurred, when the cramps returned. On changing to sulphonal in 15-gr. doses the cramps were relieved in both waking and sleeping condition. Repetition of the treatment in other cases gave the same result. The drug being slow in its action, should be given in one large dose two or three hours before hedtime, where the cramps are only nocturnal, or in smaller doses through the day. He considers the anti-spasmodic power of sulphonal of more value than its hypnotic action.

### REVIEWS AND BOOK NOTICES.

Annual of the Universal Medical Sciences. A Yearly Report of the Progress of the General Sanitary Sciences Throughout the World. Edited by Charles E. Sajous, M.D.. In Five Royal Octavo volumes. Illustrated with Chromo-Lithographs, Engravings and Maps. The F. A. Davis Company, Publishers, Philadelphia, New York, Chicago and London, 1892.

When the prospectus of this stupendous undertaking was sent out to the world many a doubt arose in the minds of us men of small things, and one was reminded of what the wise ones said when

"Bold Cyrus Field, he said, says he,
I have a mighty notion,
That I can lay a telegraph
Across th' Atlantic ocean.

"Then all the people laughed and said,
They'd like to see him do it,
He might get 'half-seas-o'er,' but
He never would go through it."

But the bold editor was only satisfied with the whole world as his field, and that the work has reached its fifth series is proof sufficient that this is a day of great achievements.

The present series shows no deterioration in the excellence of the work, and the author promises even better things for the future. Dr. O'Dwyer is the editor of a section devoted to intubation. With this work at hand the physician is enabled to keep abreast of the times in the advancement of medical science in all its branches. Quotations are made from 1,027 journals and 166 monographs; so that should one desire to study more fully any topic, he would have no difficulty in securing the best literature on the subject. Most of the sections are ably handled by the editors in charge, among whom are many of the most distinguished of America's physicians.

BOOK ON THE PHYSICIAN HIMSELF, and Things that Concern His Reputation and Success. By D. W. CATHELL, M.D. New Tenth Edition (Author's Last Revision). Thoroughly revised, enlarged and rewritten. In one handsome Royal Octavo volume. 348 pages. Bound in Extra Cloth. Price, post-paid, \$2.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1231 Filbert Street.

Full of sound advice, well and pleasantly told, is it any wonder that this book has reached its tenth edition? What so quickly attracts the attention of the young physician as the recommendations and advice of a successful and well-established physician about the things that concern his reputation and success. It would be well for all new graduates who desire to do the right thing, but who have never read the Code of Ethics, to procure this book and read it carefully; and those who have made themselves familiar with the Code would find here many valuable hints that would and them in carrying out its provisions.

By the way, the writer has often thought it would be well if the colleges, on graduating Doctors of Medicine, would present each with a copy of the Code at the time he receives his diploma.

CAMPHOID, A NEW COLLODION.—The American Druggist refers to the above named substance as a possible substitute for collodion. It is a property of iodoform that it is soluble, one part in ten, in Rubini's solution of camphor-that is, equal parts by weight of camphor and absolute alcohol-and may be thus used as a topical application. This requires fixing on the part, to get the best results; this object is attained by the addition of pyroxylin, one part in forty of the iodoform and camphor solution. A complete solution can be made in these proportions. When applied to the skin with a brush, the fluid does not spread, but dries up in a few minutes and leaves an elastic opaque film that will not readily wash off. The excess of camphor volatilizes and masks the odor of the iodoform. The gun-cotton may be used with the simple camphor solution, in the strength above mentioned, and be made to serve as an eligible base for dermatic medicaments, such as resorcin, chrysarobin, ichthyol, iodine, carbolic acid or salicylic acid. Martindale, in the *Pharmaceutical Journal* for April 9, suggests that, if the camphor and pyroxylin solution shall prove acceptable to the profession, it may be named "camphoid." In that event, the formula would read as follows: Camphor, 20 parts; absolute alcohol, 20 parts; pyroxylin, 1 part.—*Jour. Am. Med. Sciences*.

### CURRENT LITERATURE.

### THE ORIGIN AND DIFFUSION OF CHOLERA.

Surgeon-General Cornish, C.I.E., has contributed a paper to the current number of the New Magazine on the Origin and Diffusion of Cholera. Apart from the obvious interest which the subject possesses at the present time, when European countries are threatened with the prospect of a new cholera invasion on a large scale, the paper merits attention from the fact that its author has acquired a practical knowledge and experience of the disease in the East from the official position he held in India. Allusion is made, first of all, to the great value of the late Mr. J. Netten Radeliffe's labours during his lifetime in having conscientiously chronicled and recorded the facts about the progress and geographical distribution of epidemic cholera from year to year, whenever that disease overflowed the limits of its natural home in the great river deltas of Lower Bengal and India, Reliable information from health officials regarding the progress of epidemic cholera is essential to a correct judgment regarding the liability of any particular area to invasion. So far as can be gathered, Surgeon-General Cornish says, the epidemic which now threatens the whole of Europe appeared in March or April of the present year in the Northwestern Provinces of India, attacked with great violence the pilgrims at the great Hudwar fair near the source of the Ganges, spread through Cashmere and Afghanistan, reached Persia in May or June, crossed the Caspian Sea and spread amongst the population of Asiatic Russia, from whence it is making rapid progress in European Russia. The epidemic since April has travelled in a northwesterly direction and has covered or overflowed many thousands of square miles of territory, The history of the progress of the great epidemic of cholera of 1829-33 should be closely studied by those who wish to understand the significance of the present epidemic. Cholera history is apt to repeat itself, and the circumstances which happened in 1831 are therefore very likely to happen again in 1892 and succeeding years. The route taken by the present epidemic is almost identical with that which invaded Europe in 1831. It is quite a mistake to sup-

pose that since India is the natural home of cholera the disease is everywhere present there and ready to take an epidemic form. An epidemic of cholera follows the same laws in India as in any other country. It is endemic only in certain and limited parts, from which an epidemic advances occasionally, with intervening intervals of uncertain duration. Its progress is influenced by season and atmospheric conditions, and, after lasting a period of about three years, the epidemic dies out. Surgeon-General Cornish questions whether the cholera in the suburbs of Paris, with its peculiar and circumscribed topography and weak infective power, can be attribntable to the same cause as that which has invaded and is now advancing in Russia. He alludes to that country's half-civilized acquisitions in Asian soil as a source of difficulty and danger in this direction, and considers that, as far as the safety and happiness of her people are concerned, the wealth now spent on the maintenance of a huge army and on ambitious schemes for extension of territory, would have been more efficiently laid out in the improvement of the sanitary and social condition of the populations under her rule. As regards land quarantine and sanitary cordons, which European nations are so ready to enforce against their neighbors, these have never been successful in keeping out cholera. In India, with ample militery aid at hand, they have been tried again and again unsuccessfully The only provisions on which any reliance can be placed are sanitation, a good water-supply, efficient drainage, surface soil cleanliness, wholesome food and habitations. The invading cholera, if it does not reach this country in the present autumn, is, in Surgeon-General Cornish's opinion, likely to do so in 1893. Happily the early accession of cold weather has apparently had the effect, to which he alludes, of repressing the progress of the disease for the present. The moral of this matter lies on the surface. What we have to do in the meantime is to seek out and repair the weak places in our sanitary harness.-London Lancet.

The American Therapist to August, 1892, has come to hand, being the second number of a new monthly magazine, published in New York City under the editorship of Dr. John Aulde.

### THE SURGICAL CARE OF WORKMEN.

Dr. Robert W. Johnson, in a paper on this subject (Med. News, August 27, 1892), cites the conditions under which the laboring man lives and labors, and considers them as they influence him as a surgical patient. He notes his liability to injury above other classes, his exposure to vicissitudes of weather, and other debilitating effects of heat, cold and wet; his poor surroundings, miserable food, bad inheritance, and besides these he often brings with him the trail of the serpent left by the sirens of the bawdy house and bar-room. He does not forget the few advantages which tend to offset this array of unfavorable conditions. The laborer generally is of stronger constitution, is less nervous. He bears pain with Spartan fortitude, his imagination is not so vivid, and he anticipates less acutely; he is often stoical, rallies easier, is not effeminate, but essentially manly. His stomach is stronger, being accustomed to coarser food, and he retains his nourishment better than the pampered classes.

As the practical question he asks: "Who is to support the laborer during the time that he cannot earn his daily bread?" He mentions four plans, to all of which there are some objections.

- 1. Public charity—the support of beds in large hospitals. This has its disadvantages in that the patient receives no help while at home; it tends to pauperize him; he is made the object of experiment, therapeutically or surgically; also the unfair advantage taken by persons able to pay.
- 2. At the man's personal expense. Here comes the fact that the man's family generally consume all he makes from week to week, and cannot meet the extra expense, and especially with the regular income cut off; hence necessary drugs and nourishment are wanting.
- 3. Where the employer looks after the men injured in his service and pays the hospital expenses, probably allowing part pay during illness. This method has its advantages to the capitalist, in that an employee who receives such kindness is less inclined to litigation, but there is the disadvantage that it partakes of charity, the laborer paying nothing for his own maintenance.
- 4. Mutual insurance among employés as is in vogue in some of the great railroad systems, where for a regular small sum paid

weekly the man is entitled to the indemnity in case of illness or injury. This is only objectionable in that it does not associate the employer with it.

His suggestion is that there be a partnership between labor and capital in taking care of disabled (by sickness or injury) men. Let the men keep up the mutual insurance plan, but the employers pay half the expense. Then, in case of accident, the surgeon has a duty to perform, not only to the patient, but to the company that employ him. The author thinks "nowhere is a man 'a man for a' that" more than when you are about to cut him, whether he be pauper or millionaire. His robes of office, or his overhauls have been stripped off, and he lies before you clothed with humanity, appealing to your sense of human kindness as well as your professional skill. He needs your kindness, your cheer, your sympathy. Treat him as an intelligent being. State facts to him and let him decide. . . . On your own account never operate without his permission, except in emergency or his inability to give it. . . . One cannot be too conservative about amputations. It is marvelous how much injury a hand or foot may receive and yet come out under aseptic treatment a useful member."

In concluding his paper he offers the following suggestions for the surgical and medico-legal treatment of cases of injury:

"Asepsis is so difficult to maintain or to secure in hands and feet and scalp begrimed with furnace smut and driven in by contusion and laceration, that we have in the blood-clot treatment of Schede a great advance in accident-surgery when organization can take place in the deeper parts before pus-organisms have gotten a foothold and resistance is made and the field occupied by Nature's methods in advance, suppuration being discounted as it were.

"To reduce the armamentarium of the operator, when called to see workmen at their homes and when there are not the same facilities for aseptic work as in the hospital, I have devised a kettle containing trays, which, filled with the respective instruments and dressings, may be boiled while the patient is preparing. I boil everything, using silk ligatures and sutures in proper lengths wound on glass. I have substituted for the rubber tissues (which balked me in this respect) the thin scales of transparent mica to protect the clot, and which stand any amount of boiling or acids or bichloride. They, as well as the other essentials, a wash-boiler, with

meat-dishes or plates to hold the trays, may be obtained in any house where there is a stove. The dressings after boiling should be impregnated with a mild bichloride solution, for, while the boiling renders them aseptic, it does not make them antiseptic. I feel competent in an emergency now to venture, with these simple appliances, i. e., a pocket-case, a few tablets of bichloride, into a laborer's house and find those articles used in his domestic life which will give me material assistance in antiseptic work, and render suppuration more and more inexcusable, even in back country districts or with druggists out of sight. I need not dwell on the great value of pressure in eliminating dead spaces by elastic cushions of ganze, supplemented by lint, which, when dry, forms a splint.

"In the interest of the company have the testimony of eye witnesses taken at the time of the accident, so that you can present that to a jury if necessary, and not be dependent on garbled, forgetful, or partial memories should the case come into court. Inform the man's family gently of his condition from time to time, see him every day and impress him with your sincerity and attention. Avoid the publication of accidents in the daily newspapers as far as you can, as there is a "shyster" in law as there is a "quack" in medicine, who is on the lookout for damage suits for a contingent fee, and though I have known the name in print to act as a temporary balm to the friends of the injured man, and perhaps to the sufferer himself, I think it best for the interest of all concerned that matters move on without the interference of the public. So, do not court the reporter in the hope of seeing yourself advertised. You may often be asked by the patient whether or not, if you were in his place, you would sue for damages. Decline to be anything but the surgeon in charge of the case; do not oppose him, or he will think you in league with the company. Simply tell him that you are his physician and not his lawyer, and he must decide. Should your patient obstinately refuse to follow your surgical advice, it is well, as protection to yourself and your employer, to obtain a written acknowledgment of your proposition and his declination, or, if he declines to give you that, get the corroborative testimony in writing of several fellow-patients in regard to your offer and his obstinate refusal. There is no comfort in his verbally declaring that he will take the responsibility of his act; see that you are protected in black and white.

"All these precautions and cares, however, will sometimes be of no avail, unless the company you represent second your endeavors, not with parsimonious, penny-wise policy, but in the same spirit and liberally. This they can do if they contribute to the care of the injured by meeting your suggestions cheerfully, going to the necessary expense in necessities, and, more than that, wisely allow the injured man some privileges and actual money, say half-pay, while sick, in addition to his hospital cost, or if the company and men contribute equally, doing it cheerfully and punctually. Then, in the after-treatment, they can do a great deal toward smoothing matters over-an easy position for awhile to an injured man, where he can earn his living without too much hard work, gradually getting him back as he improves into his old or a better position. Men appreciate the opportunity to earn a living, in my experience, far more than they do a money benefit. A little attention on the part of the heads of the firm, a casual inquiry of a man how he is doing, all these little thousand and one ways of showing that the employer does not look on his laborer as a machine, to be cast into the gutter when broken or even useless, bring about the entente cordiale so requisite in the harmonious working of large bodies of laboring men.

"Should, in spite of the methods mentioned, a man who has been injured insist on damages, except as far as your prognosis is asked, you have nothing to do. With the law you are not an expert; to your employer you can only say what is your unbiased opinion as to the extent of damage done. You have nothing to do with the placing of responsibility on either party, and your testimony should be as impartial as if you had been called as an expert in a hypothetical case. You have no right to take sides in your testimony; though, as an employé of the company, you can suggest questions to the attorney for the possible confutation of the plaintiff's medical testimony. In the last connection, i. e., lawsuits, I am glad to say, I have but little experience.

"During the last five years I have been connected as surgeon with some of the largest manufacturing and labor-employing concerns in this State. In one alone, the medical department has treated over five thousand cases of accident and illness, ranging from fracture of the vertebre, with long-suffering life in the hospital, to contusions of the little finger. In that list may be found

death, loss of sight, disfigurement, loss of limbs, double fractures, in fact, everything nearly that can constitute an injury or ailment, and, yet on this system described, with careful and kindly work in the same line by my assistants (many cases of small injury I never see), together with the hearty coöperation and liberal seconding I always cheerfully get from the heads of the firm, we have treated, as I said, five thousand and more cases, and there is yet the first suit for damages to be tried against this firm. I do not claim it as my work, nor do I say that it is altogether that of others. We have done it conjointly, and I feel a certain amount of pride in pointing out the modicum I had in bringing it about."—Med. News.

# THE INFLUENCE OF THE DOCTRINE OF CONTAGION UPON THE DEATH-RATE FROM TUBERCULOSIS IN THE CITY OF PHILADELPHIA.

Flick gives a table of the general mortality and the mortality from consumption for the years 1861-91, inclusive, together with the estimated population of Philadelphia for each year, and says that if we study the mortality rates from pulmonary tuberculosis, side by side with the number of deaths from the disease and the population for the thirty years as a whole, we shall see that during the entire period there has been no material decrease in the deathrate from this cause until the last few years (that is, since the doctrine of contagion has been more generally accepted) and that the decrease becomes more rapid as we approach the present year, the actual decrease from 1881 to 1891 amounting to a saving of 784 lives a year, reckoning from the present population. He considers this most fortunate reduction can only be explained on the theory of the contagiousness of phthisis. Since this question has been agitated in the newspapers most people, even though skeptical, have adopted preventive measures, while the majority of physicians have urged them, while attending persons suffering from the disease. That so excellent a result should follow such trifling efforts is in accordance with what we know about the preventability of tuberculosis. All that is necessary is to confine and destroy the pus, and the most intimate relations between sick and well can be safely maintained.—Geo. D. Sears, M.D., in Boston Medical and Suraical Journal.

### THE CONDITIONS OF CURE IN CONSUMPTION.

Burney Yeo says that it is generally admitted that pulmonary tuberculosis in certain forms and under certain conditions is commonly and spontaneously cured, and, secondly, that phthisis is rarely cured, meaning by phthisis pulmonary tuberculosis which has reached such a degree of development as to seriously affect the general health and to give rise to easily recognized physical signs. Yet, whenever a new remedy is announced, it is seriously tested in many cases in which cure is inconceivable, and these hopeless cases are brought into the statistics to discredit the remedy. One of the chief conditions for cure is, of course, its early recognition, and for that reason he is disposed to consider the early occurrence of hæmoptysis as favorable, in that it calls attention in an impressive manner to the disease in a stage where it might otherwise be overlooked. At the same time he warns against considering those cases phthisis in which marked physical signs are found at the apex, due to a dry pleurisy of rheumatic origin. Other conditions which favor cure in the more advanced stage, are the natural tendency in the evolution of tubercle to fibrous change, the absence of tissue irritability-the absence of that tendency to acute inflammatory reaction to the bacillary infection, or a marked hereditary predisposition-and the possession of a sound, vigorous constitution. Another possible condition is a mitigated virulence of the bacillary infecting agent and the small number that originally gain access to the lungs. The channel by which the bacilli reach the lungs has also a modifying influence, the conditions being much more unfavorable when they enter by the blood-vessels or lymphatics than with the inspired air, owing to the wide diffusion of the infecting agent. Another condition is the selection of a proper climate; but the most essential of all is the ability to digest and assimilate nourishment, for the therapeutic measure in which the most faith must be placed is hyperalimentation. In treatment by drugs, repeated and continuous counter-irritation is almost universally esteemed as curative, and in his experience the diligent use of antiseptic inhalations has almost invariably been followed by considerable, and in some cases by lasting, benefit. Of antiseptics given internally, none have seemed so uniformly beneficial as creasote or guiacol. He has seen some good results from tuberculin, and thinks it will survive in a modified form the temporary opposition to it.—GEO. G. SEARS, M.D., in Boston Med. and Surg. Jour.

### THE RETURN OF HYDROPHOBIA.

Nearly two years have elapsed since the discontinuance of the muzzling order within the metropolitan district in favor of a system of registration. During this period no fresh outbreak of hydrophobia has occurred to suggest the necessity of returning to the former method of prevention. Quite recently, however, a fatal case occurred in Twickenham. Two others have been reported from Saltash, and have naturally given rise to some uneasiness in that district. It is satisfactory to note that the local authorities have acted in this instance with commendable wisdom and energy, and that muzzling has been enforced throughout a considerable area. We may therefore hope that the disease will spread no further. At the same time we must not forget that this desirable result can only be looked for if the sole preventive method of proved efficiency, the use of the muzzle, be maintained for some weeks at least in full operation. The experience of Saltash, more over, is instructive, inasmuch as it reminds us how hydrophobia, even when it has been apparently stamped out, is apt to reassert its vitality by appearing in an outlying district which was previously as free from taint as from preventive supervision. The implied warning should not be lost on local authorities elsewhere, who may be disposed to trust in an imaginary immunity, and it cannot be doubted that if the use of the muzzle were generally insisted on, we should practically abolish a disease which is the essential counterpart of canine vagrancy. While according a due preference, however, to such obvious measures of prevention, we have also to remember that the principle which underlies them has now, thanks to M. Pasteur, a very real importance in relation to curative treatment. Not one of the fatal cases already mentioned appears to have attracted notice till near its termination. We would therefore the more earnnstly impress upon any persons, and especially upon practitioners who may be called upon to deal with injuries of this kind, the necessity of obtaining at the earliest moment, and if needful through local authorities, the opportunity of inocculation. According to a recent report by Dr. Dujardin-Beaumetz, which will be found in our Paris correspondence, the death-rate from rabies, which at one time was 15 per cent., has by the Pasteur process been reduced to 0.88 per cent.—London Lancet.

### CURRENT NOTES.

Dr. Keeley Sues the Lancet.—It may interest our readers to know that Dr. Keeley has issued a writ against the editors of the Lancet, claiming damages for libel. Our solicitors have of course accepted service of the process.—Lancet.

ITALY has been provided with its first Pharmacopæia, under the title "Farmacopea Ufficiale del Regno d'Italia." Japan also has issued a new Pharmacopæia, printed in the characters of the country. There is also a Latin translation of this.

IT IS EARNESTLY REQUESTED that all persons having in their possession any books belonging to Dr. Thomas F. Wood's library will make immediate return of them to the office of this JOURNAL. Please do not delay in this matter as it is important that all books belonging to the library be on their shelves as soon as possible.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.—By order of the Council, the Annual Meeting of the Association has been postponed from the 8th, 9th and 10th, until the 15th, 16th and 17th of November. It was thought wise to change the time of the meeting from the fact that the 8th of November is the date of the Presidential election.

ACETANILID AS A PRESERVATIVE OF SOLUTIONS FOR SUBCUTANEOUS INJECTION.—Thomas J. Keenan (Nouv. Rem.) recommends the substitution of acetanilid for all substances such as glycerin, alcohol, chloreform, salicylic acid, boric acid, etc., employed hitherto to prevent the alteration and decomposition of solutions for subcutaneous injection. Acetanilid is superior to all other recommended substances in that it preserves the solution even when added in very minute doses, and, moreover, it is devoid of any noxious action upon the medicaments.—Bulletin of Pharmacy.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.—A very full programme is announced for the coming meeting of the American Electro-Therapeutic Association which is to be held in New York, at the Academy of Medicine 17 West 43d Street, October 4th, 5th and 6th. There will be two interesting discussions, one upon "The Relative Foeticidal value of the different Currents

and their Application to Ectopic Gestation," and another upon "Cataphoresis and its Practical Application as a Therapeutic Measure." Papers are announced by various eminent physicians. In connection with the meeting there will be an exhibition of modern medical electrical apparatus, all the prominent manufacturers being represented. The social part of the programme includes many pleasant surprises.

STRYCHNIA IN POISONING BY ILLUMINATING GAS.-Dr. James T. Johnson, in the Maryland Medical Journal, reports a case of a man exposed for five hours in a small, tight room to the effects of coal gas from an open burner. Artificial respiration was kept up five hours. At first trinitrin and whiskey were used hypodermatically at intervals, each administration being followed by immediate improvement in the cardiac action. Strychnia sulphate in 1.60 grain doses were finally given to stimulate respiratory effort. Improvement followed each dose, but not until the third dose had been given had the respiration so improved that the artificial respiration could be safely omitted. The author says: "Attentive observation of the immediate effects of the drugs used leads to the conclusion that strychnia was the drug to the use of which the successful issue of the case was largely due, in addition, of course, to supplementing voluntary by artificial respiration. Almost at once following each hypodermic of strychnia both the depth and frequency of inspirations were notably augmented. Death seemed imminent from deficient respiratory effort, cardiac action remaining relatively good. Trinitrin, alcohol and ammonia, though immediately and certainly stimulating the heart, did not seem similarly stimulant to the respirations, while strychnia satisfactorily fulfilled this indication."

Venomous Snakes of North America.—Dr Barringer, of the University of Virginia, has given, in the last volume of *Transactions* of the Southern Surgical and Gynecological Association, his views regarding the dangerous serpents of the United States. The rattlesnake, the copperhead and the water moccasin are sufficiently established in their reputations and have been often described; the first of these is sluggish, the second agile, and the third spitcful. The dangerous capabilities of the harlequin snake, the *elaps fulvius*, however, are less known. This beautiful little reptile, sometimes known as the coral snake or bead snake, is the only known repre-

sentative of the cobra family in North America. It is found from Virginia to Texas. Its average length is not more than eighteen inches; in color it is blue-black, with brick-red and yellow bars along the caudal extremity. It is gentle and may at times submit to handling without biting. It has fangs, however, and Dr. Barringer has known of a fatal case, death following within twenty hours after his bite. The author estimates that ten per cent. of rattlesnake bites cause death; only one per cent by the copperhead, and no deaths are known to him as having resulted from the bite of the moccasin. No bacteria have been found in the venom of snakes freshly taken, but a host of septic bacteria may exist in the saliva of these animals, left in the mouth from its food. These latter germs flourish to a greater or less extent in the buccal mucus, and in the case of the copperhead this mucus is so abundant that the name "cotton mouth" is frequently applied to the snake. In about five per cent. of snake-bites a chronic septicæmia is a result of the introduction of these septic germs of the salivary fluid .-Journal of the American Medicul Sciences.

A Modification of Teal's rectangular flap operation is suggested in the Medical Record of August 27, 1892, by Dr. Robert J. Reed, whereby the length of the flaps can be materially reduced. It is in case of injury especially where most of the sound tissue is on one side of the limb that this operation is best suited. In Teal's operation the ends of the flaps are stitched together, and this requires the length of the short flap to be one-fourth the circumference of the limb where the amputation is to be done, while that of the long flap is one-half the circumference. The modification suggested is in the marner of coaptating the flaps. Each flap being in breadth half the circumference of the limb, and containing only skin and subcutaneous tissue, the short one extends only to the level of the sawn bone, the long one being in length one-fourth the circumference of the limb. The sides of the long flap are turned up and stitched to the end of the short flap, at the center of which they meet, the length of the long flap being equal to one-half the breadth of the short. The end of the long flap is thus doubled on itself and stitched together. The suture line is then in the form of a T, the horizontal arm corresponding to the arm of the short flap and the perpendicular extending from the center of the short flap to the fold in the end of the long flap.

MRS. MARGARET ANNE NEVE was born on May 18th, 1792, and was married in 1823 at Rouge Huis, Guernsey, to Mr. John Neve of Tenterden, Kent, who died in 1849. She has travelled much, having visited every country in Europe save Portugal. She is now in good health, hears well and sees well even without glasses; she has neither ache nor pair, and walks to church and to market. Her mother lived ninety-eight years and a half, showing the element of heredity as so many long livers do. Mrs. Neve's habits have been always simple and temperate, but not those of total abstinence.—London Lancet.

### READING NOTICES.

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The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has avaimined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

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# NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M.D.,
GEO. GILLETT THOMAS, M.D.,

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# ORIGINAL COMMUNICATIONS.

#### ANNUAL ESSAY.

THE IDEAL IN MEDICINE.

By OSCAR McMullen, M.D., Elizabeth City, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

I am impressed with the belief that, had your Nominating Committee been guided more by considerations of your entertainment and instruction upon this occasion than by the deceptive glamour and haleyon days of college chumship, the mantle of this prophecy would have fallen upon more capable shoulders; still, regarding the Medical Society of North Carolina with an affection and fealty

sprung, Minerva-like, into existence with the growth of adult life and ready for duty, there is no honor, however slight, it may bring; there is no labor, however difficult, it may impose, I would not receive with avidity and perform to the full measure of my capability. Dearer to me than the exaltation of physical health, dearer than mental repose, fairer and more to be desired than the gems of Oude, are the smallest honors which it gives. As soon would I think of refusing the bendictions of a beloved parent as of thrusting back into the face of this Society, our guide in all that is highest and best in the science and art and sentiment of medicine, the duties which it imposes or the emoluments which it offers.

The subject selected is:

#### THE IDEAL IN MEDICINE.

I have been induced to such a selection instead of a subject purely and technically medical, since the Annual Essay is generally read before a mixed audience, and from the further consideration that the professional part of my hearers have had, or will have, before this Society adjourns, medicine, surgery et id omne genus, ad nauseam.

In the elaboration of the title there arises two ideas for consideration:

- 1. The ideal doctor.
- 2. The ideal patient.

And however much I may feel my conscious power expanding within me for reading instruction to the laity, I must confess, when I look out over my audience and see the faces of many of my associates beautiful with the graceful lines of searching thought, and heads silvered with the workings of age and experience, I feel the temerity of my endeavor, and did I not recognize the truth of the devil's remark to Mother Eve—

"Yet shapes uncouth, that dully stroll about with awkwardness,
May know some truth and tell it,
So that a fairer and more learned one, by taking heed,
May gain advantages,"

even now I would desist from the undertaking.

There is no vocation beneath the sun more exalted in its character and more exacting in its demands than that of the physician's life, except, perhaps, it be the calling of that one who tells the story of the "strangely sweet teachings of Jesus." The very nature of the object upon which this vocation is exerted, the mental and material make up of man, the grandest and most complex of all created things, gives to it a dignity beyond all other pursuits of an earthly character. How important, then, does it become that each one who essays this noblest life-work should strive for the highest possible standard, and be thoroughly equipped for the difficult undertaking which he has assumed.

There is no business, however simple, which can be successfully prosecuted without proper training and suitable preparation; and he who attempts any, even of the minor, pursuits of life without this preparation, in the majority of instances, will ultimate in signal failure.

The successful farmer must learn his art through years of patient observation and experimentation. The merchant must abide his apprenticeship and the mechanic patiently learn his trade. Our brother, the disciple of the green satchel and crooked tongue, masters the theory and practice of law only after years of persistent application. If, then, the accomplishment of success along these lines of life's work, where all is material and tangible, where all can be weighed and measured, and where, if mistakes occur, they are temporary and correctable, depend upon a previous and proper preparation, how superlatively important it is that the physician enter upon his life career four-square and complete in every detail, for in his case mistakes are mistakes forever, and often fatal.

The study of medicine is mainly the study of man—of man in all his wonderful and intricate arrangement of ganglion and vessel and nerve, with all his hidden secrets of animal and vegetative life, with all his high endowments of intellect, sensibility and will. With all this vast, interesting, and, alas! often obscure, field to be explored, how appalling does the flippant way in which its great responsibilities are assumed appear to the reflective mind. The time has been when these grave responsibilities could be taken up by anyone without let or hindrance, and often it has been the case that some have dared to enter into these beautiful mysteries of life without chart or compass or guide to the hidden field they would explore.

Even when an attempt at preparation was made, oftentimes, it was incomplete and totally inadequate, the main idea being the possession of a Latin-written diploma, the meaning of which remained as inscrutable as the riddle of Sphinx. It is for reasons such as these that our profession has failed to merit and obtain from the laity that high place which the importance of our mission would naturally assign us; and when we have fully met the demands which the public has the right to make at our hands, and approached as near as may be that idea which presently will be delineated, I doubt not that they will be more ready to grant all we ask in honor. respect and material wealth. I desire to-night to show how the oncoming profession can reach the desirable goal. And while I am well aware that I shall, in some measure, go over ground traversed by others before me, still I am consoled by the reflection that the accomplishment of all changes for the better in the world's history, whether social, scientific, political or religious, have been wrought by the persistent, repetitive and untiring efforts of men.

In the first place, in order that the physician may approach the ideal, and merit and gain the greatest confidence of his community, it is necessary that there be in his mental and material make up a certain adaptability for such a life. "You cannot make a jewelled purse from a sow's ear," and you cannot metamorphose an inherently coarse and unsympathetic nature, with mind vicious and grovelling, into the kind and generous, sympathetic and polished attendant of the boudoirs of culture and refinement. Cultivation and training may do much, but they cannot give that warmness of heart, gentleness of manner and ingenuousness of thought so essential to the attainment of the highest phase in the physician's life. As of the poet, with equal truth it may be said of the physician, "Doctor pascitur, non fit."

Then the born physician must receive suitable educational qualifications outside of the technique of his profession. The intelligence of a community judges the capabilities of a medical man more by what information he possesses outside of his professional studies than by any lucubrations in the recondite subjects of embryology and bacteriology.

Outside of the reputation for scholarship which a liberal education brings, a certain amount, and that not a minimum, as some would have us believe, of mental culture and training is absolutely

essential. The problems to be met and solved in the every day routine of a physician's life comprise some of the grandest and most complex which engage the attention of men. The medical mind must be taught to think quickly, to estimate the nice relations between cause and effect, and to form and put into execution an unerring judgment. In order to accomplish such ends it must grow up and be developed under the nourishing influences of a proper pabulum. Mathematics, in its higher problems, with thought along the plane of pure abstraction; physics, with its logic of cause and effect and correlation of forces; the classics, with its golden chains linking us to all the human nature, to all the poetry, beauty and glory of the mythic poet, and bringing to us along with the charm of historic life in antique time, a richer power of clothing the thoughts which people the brain in the euphonious habiliments of perfect language-these, all these, are the food upon which the professional mind must feed in order to accomplish its full development. The only aristocracy or caste in which I believe is the aristocracy which comes from this higher moral and intellectual culture, and in such an aristocracy lies the salvation of this Republic. I am convinced that the iambics and hexameters of our colleges and universities are the forces which have given, and will give, perpetuity to a government whose very foundations have been, and are now, threatened equally by the anarchistic, ignorant and discarded foolstool of Europe, and by the money power indigenous to our own soil. There is something in this higher culture which inherently tends to lift man's attention away from the degrading things of time and sense, to chasten his thoughts, to purify his sentiments and to point to that high goal of excellence which should be the working ideal of every heart. In view of such facts how important it is that the members of the medical profession, both for their sakes and their native land, should enter upon their life-work with minds trained to high and liberal thoughts, and hearts imbued with that broad and protecting patriotism which only the loftier moral and intellectual culture can inspire. Along this line, my honored confrérés, lies our quickest route to that eminent position in the public esteem which the importance of our work naturally assigns to us; and only in this way can we, as individuals and as a class, hope to fathom and appreciate all the rapid and complex unfoldings that are being made from day to day both in the science and art of medicine.

After being born and reared to a natural fitness for a physician's life, after being thoroughly trained in both analytic and synthetic thought by the mental stimulus which a liberal education affords, the labor of acquiring the necessary professional technique may properly be undertaken. As this is the distinctive feature of a doctor's training, so it is the most important, and no one can hope to gain substantial and honest success without it. Only a few years ago, in the effulgent light of the nineteenth century, amidst the civilization which surrounds us in this Grand Old State, any one, so desiring, could legally trifle with the life of his fellow-man. The ignorant boor from the plow or the bench, the blatant quack, fresh from the diploma mill, the scheming charlatan, the callow stripling, from the third rate college, could assume at pleasure the toga medicalis, and bask in the honors of the doctor's title with as much assurance as the most dignified and cultured disciple of Æsculapius. Thanks to the efforts of this Society this foul blot has been removed from the escutcheon of the Old North State's fair honor, and to-day some considerable preparation must be evinced by him who would assume the responsible functions of the physician's office. Let the good work go on. Let the standard in morals, in preliminary education, in professional training, be continually elevated towards the ideal, until none, except those thoroughly equipped in all parts, be admitted to the ranks and honors of the ancient guild. Let us see to it that, to be a practicing physician in-North Carolina shall be a synonym at home and abroad for all that is honorable, for all that is cultured, for all that is scientific in the medical profession. To accomplish that it is necessary that the time of professional training be lengthened. In a new country like America there is an innate tendency to the precipitancy and hurry of youth; but we are now becoming sufficiently matured to lay aside the skurry and bustle of our younger days, and in matters medical, at least, we would do well to imitate our more settled frieads across the water. There from three to five years are deemed requisite for the completion of medical training, while ir our own country the same work is supposed to be accomplished often in one year. The author of this essay left home in October without any previous preparation, and on the first day of the following July-

just nine months—he was declared by one of the best universities in this land as learned in all the mysteries of the theory and practice of medicine, and as a suitable one to whom the lives of his fellow-man might be entrusted with safety. No doubt, in theory, there was a fair show of fitness; but in practical application there was much to be desired. During my whole student career I had not seen a sick individual nor a single surgical procedure. I returned home thoroughly unprepared to cope with the exigencies which confront the physician at every turn, and but for the practical training and help received from an older brother, I doubt not that many a pang would have remained unassuaged which should have been relieved, and to-night many a soul would be awaiting me on the other side of the Stygian stream with taunts and curses for their "untimely taking off." The ideal physician should not only be thoroughly drilled in the science of medicine, but should have opportunities under the eye of an experienced teacher for putting his knowledge to the test of practical application.

At this point I desire, in an episodal way, to say a few words to those young gentlemen who are now just upon the threshold of their important career. The often vital mistake which most young men commit in any of the vocations open to their choice is too great anxiety to enter upon the responsibilities of real life. As already intimated, they are unwilling to give those years to preparation which future decades, ladened with ponderous demands, necessitously require. How small a pittance of time does one or two years appear when viewed in the light of the forty years of responsibility which are to follow. What is the cause of this precipitancy? What so impels the young heart along the ardnous way? It is not ambition to be eminent; if so, the most feeble dictates of prudence would discover such to be a suicidal policy. It is not poverty, for to him that willeth there always opens a way. Leaving out of consideration that inborn indisposition to labor, which, alas! afflicts the majority of our race, I am convinced that woman, yes, lovely and lovable woman, is the occasion of many a failure which saddens the main of professional life. Do not understand me as wishing to take one gem from the jewelled crown of pure and beauteous womanhood. I belong to that majority who believe that, of all the beneficent gifts from the creative hand of God, a woman, pure and good, excels them all, and is more beautiful than "any other form of matter ever seen on land or sea, in flower or gem or living thing."

"As flowers beneath May's footstep waken,
As stars from night's loose hair are shaken,"

so the most vivid joys which perfect the life of man spring wherever her gentle step is heard, and from her presence there is distilled the rarest benedictions upon the responsive heart. It is not, therefore, against woman as a class that I inveigh, but rather against that love for a particular individual which so strongly impels the youthful heart to the (oftentimes) disastrous entanglement of matrimonial alliance before thorough preparation has been made for life's important work. The exactions of a loving wife and the discordant music of the cherubic infant, however joyous they may be in the serene days and calm of later life, are not very conducive to success in your hours of reflective study, and will unconsciously ween you away from that mental application so essential in the first years of practice to fix the attainments of your student career.

For these reasons I would bid the youth who aspires to great things, who would approach the ideal, to beware of love. Of the smooth glance and the siren voice beware; for it is too late when on the heart the "torrent softness pours." "Then wisdom prostrate lies, and fading fame dissolves in air away." When you are ready for a wife select with your maturer judgment a suitable helpmeet, and she will crown your life with choicest blessings; before that time even the best will be a clog and a hindrance.

We now come to that part of our subject which more clearly touches those present upon this occasion. What shall the medical man add to his innate qualities, his scientific accomplishments and technical information, to render him the ideal in medical practice. It goes without saying that he must be neat in attire, yet not a devotee of ultra fashion; courteous in manner, yet not sycophantic; gentle and persuasive in speech, yet not vacillating or womanish; silent as the grave in professional matters, yet not cold and seclusive; chaste in conduct, yet not to prudery; temperate in all things, yet not a fanatic. In addition to these characteristics, he must practice medicine for pure love of his work, and carry in his bosom a broad and catholic feeling of kindness for every creature whom God has made—a kindness that is forever responsive to human

suffering, and will not hear unanswered the wail of anguish from the afflicted one, whether he be the veriest pauper of the kempt shanty or the lordly possessor of the splendid mansion. The ideal physician will not linger to quibble about a paltry fee, when, in his imagination, he sees the palid form writhe in torturing agony. The truth is, my friends, the ideal physician will do his duty for duty's sweet sake, and because it thrills his soul to relieve the woes of terrene existence. The ideal physician as the ideal messenger of Jesus will go about relieving human suffering without anxious thought for fee or reward that is to follow. To him whose fancy pictures the real bless of life as reposing in the lap of vast and luxurious material wealth, I would advise a different path in life from that the physician must tread. The history of the profession shows that the doctor who has accumulated more than a competency is indeed a rara avis, and when such an one is discovered it will be found that the riches have come through other avenus than that lined by pills and powders, by days of ceaseless toil and nights of broken rest. But I am happy in the reflection, there comes to the faithful physician a reward for his service which cannot be measured by coins from Ophir, as sweet as the solacing joys of religion and as lasting as the immortal mind. Disappointment must ever await him who attempts to satisfy the thirsty longings of his infinite soul for happiness with the material things which finite time supplies.

"As well seek for mellow grapes beneath the icy pole, For blooming roses on Death's pale cheek,"

as to expect to fill the soul, which Heaven has given us, infinite in its cravings, with the paltry offerings which time and sense can furnish. The unspeakable joy which thrills to its remotest ganglion the soul of him who loves his fellow-man, and who, solely on account of such love, without hope of reward, has assuaged the pangs of physical pain and smoothed down the anxious brow of sorrow, will remain to comfort and bless when the material rewards of men have perished from his grasp, and, as he passes the portals of the "narrow bourne," will crown his departing life with a halo of light, and pour over his heart the chrism of a beautiful peace. Love for our fellow-man! This is the crown jewel of the ideal physician's heart—yea, the very essence of all religion. However

much the nations of the earth may differ in their conceptions of Deity and their form of worship, whether they be Fetichist, Buddhist, Moslem or Christian, the very highest test of virtue in them all is kindness shown to their fellow-man in distress. Perhaps we may never know the true teachings of Jesus in regard to the rites and ceremonies of the Christian Church—the mode of baptism and the proper subjects for such a rite, the nature of the Eucharist and its proper participants, priestly succession and the governmental policy of Church organization-but we do know, in the estimation of the greatest of all physicians, at whose magic touch the tentacles of the most mortal malady never failed to unloosen, the simple act of Him who bound up the wounds of the unfortunate on the wayside and poured words of sweet consolation into the despondent heart, far ontweighed all the gilded paraphernalia and gorgeous ceremonial of the Jewish Church. If material wealth should come as a natural sequence to the faithful discharge of duty, the ideal physician will rejoice, since it gives him wider opportunities for blessing his kind; if it come not, he will not repine, for in the sweet garden of faithful duty done there grows a "charm for every sorrow, a balm for every woe." With the friends whom his goodness has linked to him with hooks of steel, with a mind forever vernal with the reflections of conscious duty done, and an honor unbesmirched, he can defy the reverses of fortune and smile at the irony of fate.

"O, time, when life beats feebly in my veins
And wintry snow upon my head descends,
Take health and strength and all my paltry gains,
But leave me 'a clear conscience' and my friends."

As there is an ideal physician, the best to be conceived in the profession of medicine, so there is his correlative,

#### THE IDEAL PATIENT.

While the physician has duties to be discharged and obligations to be sacredly fulfilled towards the patient, with equal force the patient is bound to his medical attendant. It is the first duty of the patient to use his best judgment in the selection of his attendant, and when the selection is made, to adhere to him under all possible circumstances, until unfitness for the trust reposed is

thoroughly shown. In such selection all those qualities should be considered which have been already adduced as constituent of the ideal doctor. If the choice be made for any other reason, because such an one is less expensive, is your kinsman, your friend, your neighbor, your co-worker in Church or State, the time will inevitably come, when the pangs of the body remain unrelieved and Pallida Mors, with sickle keen, approaches for an untimely reaping, that you will regret your choice. The best patient never chooses his doctor in a haphazard and careless manner, nor after he is chosen views him with commercial eye as an ordinary hireling, but as a friend and adviser in the more serious and sacred aspects of life reposes in him the most trustful confidence, and unbosoms to the sympathetic ear the secret burdens of himself and family.

Of course, such a patient, unsolicited, will not only bestow upon his attendant, thus selected and trusted, a tangible honorarium commensurate with the material service rendered, but will at the same time appreciate the fact that there is often manifested on the part of his doctor a co-suffering, a mental strain, a disregard of personal danger unredeemable in shekels of silver.

When the young wife and expectant mother lies pale and exhausted by the throes of parturition, "life trembling to a point, leaping off by fits," and husband and relatives stand paralyzed by fear or stupified by grief, then the calm, but sympathetic, medical attendant bears alone the burden of two precious lives. With mind keenly alive to the dangers of the moment, and heart pulsating in responsive suffering to the anguish around him, with one hand, as it were, he shields from the cormorant-Death-the fair form under his care, and with the other conducts the new life through that "triumphal arch under which every candidate for immortality must pass." It is for service such as this, my friends of the laity, for which your material wealth furnishes no adequate reward, and the debt must be liquidated, if ever, by the grateful acknowledgment of an appreciative heart. Do not hesitate, then, both in the doctor's presence and in his absence, when there is good prospect of his hearing it again, to speak words of commendation and gratitude, for I assure you they will enrich his toiling life more than pecuniary gain, will fall upon his receptive ear as an eloquence more persuasive, as a music more sweet than ever echoed through Attic temple, or fell from golden harp.

When the gloomy pall of pestilential stroke rests upon the land, and the very atmosphere is freighted with a funereal sadness; when the invisible enemy, the death-bearing germ, marching under the black banner of extermination—the dark wing of Azrael—more destructive than Attila, more relentless than Nero, treads the viewless fields of air, enters our cities, our homes, and sits by our firesides: when the terror-stricken multitudes desert their friends and vacate their homes, leaving behind them in their flight only poverty, ghastly disease and bitter death, then the faithful physician, uninspirited by strains of music or the huzzahs of comrades, stands urflinchingly at his post like warrior at cannon mouth. All day long and through the silent watches of the night, with a professional prescience oftentimes of the hopelessness of his labor, he walks the deserted city, the echoing sound of his footsteps falling upon his weary heart like clods on coffin-lid, and administers to the pale victims of the fell destroyer that mental and physical consolation which only the faithful physician can bring.

While for such a hero there will be no crown of bays or hymn of panegyrist, no breathing bronze, no marble shaft or cenotaph, still, in the ideal patient's breast, there will live a memory of such a service more enduring than monuments, "more perennial than brass."

The life of the physician is peculiarly a wearying one in its endless routine of duty. There is no moment he can call his own from one year's end to another, but he is the continuous slave of those who may require his service. The lawver lays aside his brief between terms and rests from his labors; the minister, in this day of fashionable invalidism, deserts his parish for the exhilaration of seaside and mountain; at periods the workman lays aside his tools and the ploughman his share; the laborer watches with joy his lengthening shadow since it speaks of the repose which approaching night will bring; and to all these the Sabbath, sweet day of rest, with its complete cessation from all work and care, brings to the body and mind of each holy influences and refreshing repose. The faithful physician has no moment, no day, no night, no Sabbath, which he can claim, for death, relentless and insatiable, roams the earth at all seasons and plucks his victims at all times. In view of such facts the considerate patient will not require of his doctor unnecessary

and untimely labor, nor disturb, except under the most imperative circumstances, his hours of needed rest and sleep.

The life of a physician is filled with delicate situations, and his simplest expressions are often, honestly or maliciously, misinterpreted and corrupted.

Every community has its incubus of human vampires who, characterless themselves, find in their own depraved bosoms the standard by which they estimate the lives of others, who regale themselves as upon sapid viands with the slanderer's odious tale, and are never so happy as when they chant the hymn of character-defamation. The ideal patient lends no listening ear to such as these, is ever ready with the ægis of his protecting denial and refutation to shield the faithful physician and friend from the envious and envenomed shafts of those who would assail him, and never entertains, except upon the most indubitable testimony, the incriminating criticisms of jealous rivals, nor the insinuating thrusts of malicious foes.

In summation, the ideal patient will never suffer his doctor to solicit material reward; will ever appreciate, and show it by grateful words from a more grateful heart, the soul service which money cannot buy; will rejoice in the moments of success and pleasure, and in the sombre hours of defeat and depression will swiftly extend the warm and gencrous grasp of sustaining friendship. My confrérés and friends of the laity, may it be the aeme of ambition in this reciprocal relation of doctor and patient that each may lead the other in all that is generous in human nature, in all that is lofty in human conduct. And in all future years and meetings, even until, in the finality of earthly hopes and issues, we meet

"Beneath far lovelier skies, Than sprinkle beauty through the balmy South."

As physicians, laying aside all jealousies and dissension, as patients, putting away all distrust and suspicion, may we labor together in concordant harmony towards the attainment of

THE IDEAL IN MEDICINE,

SALOPHEN.—Dr. W. H. Flirt finds that salophen (acetyl-paraamydo-salol) acts very well in acute rheumatism, given in doses of fifteen grains every three hours.

## REPORT ON OBSTETRICS.

By W. O. McDowell, M.D., Scotland Neck, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

## OBSTETRICS.

Of all the bitter scenes and sad disappointments that must be faced by a physician, there is none more pitiable, none more profoundly sad than that which the lying-in chamber sometimes presents—a living infant and a dead mother

This one thought should be sufficient to cause a medical man to give every lying-in woman who has placed herself in his hands his most serious attention. When an expectant mother has confided herself to the hands of a physician he should, if possible, visit her previous to her confinement, in order to ascertain her disposition, her temperament, her mental or physical peculiarities—whether, if a multipara, she be subject to eclampsia, puerperal mania, or any other avoidable malady. Or, if she be a primipara, he may form some idea of what he is to encounter. One thing he will certainly gain-he will save his patient a great deal of anxiety and excitement on his arrival at her confinement, which might be attended by a cessation of pains and perhaps delay, thus causing loss of time which might be more profitably spent elsewhere. He should make some suggestions in regard to the chamber in which the confinement is to take place. This is very important, for I have frequently seen onions, potatoes, pumpkins, old clothes and shoes under the bed on which a parturient woman was lying. Such things, of course, furnish a nidus for the great variety of deadly organisms which swarm in a lying-in chamber, and should be removed before the hour of confinement arrives.

Having made the aforenamed visit and given all necessary instructions, the physician returns and awaits the summons. When called he should spare no time in getting to his patient's side. After having ascertained her condition, he should at once turn his attention to the condition of the bed, room and surroundings generally. Only a few days since I was called to deliver a patient, and, as is my custom where there is cause to suspect any such thing, I told the husband that anything that might be under the

bed would prove a fruitful source of septic poison, whereupon he drew out a box of pork or bacon that had been packed away under the bed. I believe in Listerism! By Listerism I do not mean the indiscriminate use of carbolic acid, but its judicious application where antiseptic measures are necessary. I mean, too, not only the use of carbolic acid or other antiseptics, but the most scrupulons cleanliness about the lying-in chamber. Dampness should be excluded from the room, all decaying or putrefying matter removed from about the building, and the very strictest hygienic measures observed in every way.

## Examinations.

This subject has been frequently and freely discussed and various opinions advanced. I shall say nothing on the subject except in regard to frequency or infrequency of examinations. For a time I was of the same opinion as a great many others, that, after ascertaining the advancement of labor, the presentation and position of the child, examination was not necessary until just before the end of the second stage. Experience, however, has taught me differently. One reason, if no other, warrants me in making frequent examinations, and, in order that I may present it in an impressive manner, I will report a case:

Mrs. S., white, act 43, multipara, sent for me, May 16, 1885. The patient had been in bad health for several months previous to confinement. When I was called the patient had some pains, and, on examination, I found the os beginning to dilate, the membranes having previously ruptured. The movements of the child were very great, so great, in fact, as to cause the patient to cry cut at times. In about one hour after I arrived I noticed that all mobility of the child had ceased and that the patient was lying perfectly calm. I took hold of the hand, and, on pressing her pulse, found it very rapid and thread-like. With stethoscope over the abdomen no fætal heart-beat could be heard. I was at once convinced that something was wrong, and, upon making an examination, found that my patient had lost an enormous amount of blood. The first thing my hand met with was the prolapsed cord. I felt for pulsation, but there was none—hæmorrhage still profuse. Gave ergot, but it seemed to have no effect. I then injected a syringeful into the thigh, which seemed to partly control the hæmorrhage. On

close examination, I found that the cord was tightly pressed between the feetal head and pelvic bones and all circulation cut off—the child was dead. From loss of blood pains were very weak and accomplishing nothing; so I delivered her with forceps of a large female child.

Now, had examinations been made more frequently and the cord detected when it first presented, these alarming symptoms and a still-born child might not have been the result. If the cord is detected when first presenting, with any flat instrument—a common bonnet stave, if nothing else is at hand—reposition may frequently be easily accomplished. With one or two fingers in the vagina, fix the instrument against the presenting loop and gently push it up until it cannot be pressed by the head. I do not mean that the accoucheur should sit with his hand in the patient's vagina from beginning to end of labor, but frequent, brief examinations will not fatigue the patient, and no harm can come of it, whereas negligence in this respect might result in irreparable damage both to the patient and to the physician's reputation.

One of the principal causes of prolapse of the cord is the too early rupture of the membranes in absence of or at beginning of pain. The membranes should not be ruptured until the os is dilated or dilatable, and should always be done as the pain is passing off, for then the presenting part of the child is pressed down into the cervix, and thus prolapse of the cord is prevented.

# A Cause of Prolonged Labor.

Many a prolonged labor might be much abbreviated if the accoucheur would but watch the position of the uterus. It will frequently be observed in these prolonged labors that, when the uterus contracted, the fundus will tilt forward over the pubes, turning the cervix back, with the os against the sacral wall, and thus prevent the fœtal head from advancing. To illustrate: On March 27th I was called to deliver Mrs. F., a lady who was in excellent health. I found her in the hands of two midwives, and was informed that she had been in labor for forty-eight hours with the strongest imaginable pains. On examination I found vertex presentation, but no os could be felt. I waited for a pain, which soon came. The uterus ascended and turned forwards, as described

above. Examining during pain, I found that the cervix had receded and was firmly set against the sacral wall.

By pressing the fundus back the cervix was brought forwards and found to be dilated to about two inches in diameter and very rigid—L. O. I. A. position. I gave 20 grs. of chloral hydrate, partly to give my patient a little rest, which was much needed, and also to relieve the rigidity of the os. I then pressed the fundus back in its normal position and kept it there by steady pressure. Pains were almost incessant, and in twenty minutes a large male child was expelled. This is only one out of many similar cases that I have witnessed.

This tilting forwards of the uterus is brought about by the cooperative contraction of the round and utero-sacral ligaments, for it will be remembered that the round ligaments send a thick loop up over the fundus in front, and are attached below to the spine of the pubis, while behind the utero-sacral ligaments run from a level with the internal os and are attached about the third and fourth sacral vertebræ. The round ligaments become very thick during pregnancy, and it is reasonable to suppose that the traction made by them during labor would be very great. All the pelvic organs are thrown into action during labor, and, when we remember that the round ligaments are drawing forwards at the fundus, and the utero-sacral ligaments are drawing backwards at the cervix, it is readily understood how the uterus is thrown out of position during labor.

In view of these facts I am convinced that many a tedious labor could be cut short by keeping the uterus in its proper position during contractions.

# Management of Labor-Position of Patient, etc.

It is universally acknowledged that the patient should not be allowed the recumbent position during the first stage of labor, yet, under certain circumstances or for certain well-founded reasons, it must at times be allowed. If the patient be very anemic or subject to vertigo, nausea and vomiting, then it would be better to allow her to lie down or recline in a chair. It is desired that the child shall, by gravitation, press down into the cervix, and thus aid the feeble contractions of the uterus, which are almost nil in the first stage.

## Second Stage.

About the beginning of the second stage the patient should be put to bed. Whether she should lie on her side or back is a question that has elicited much discussion.

It is claimed by those who advocate the left side position that the dorsal position leads to unnecessary exposure of the person and increases the risk of laceration of the perineum by bringing the weight of the child's head to bear directly upon it. So far as the unnecessary exposure of the person is concerned, no well educated man will dare expose the genitals of his patient during labor unless it be under extraordinary circumstances. The hand is, or should be, educated to do its work under cover. The physician who is not able to ascertain the presentation and position of the child and the advancement of labor, to manage labor, under ordinary circumstances, from beginning to end, without exposing his patient, should quit the field of medicine and find employment elsewhere.

In regard to lacerations of the perineum, in 1881, when I was in the Maternity Hospital of Baltimore, we used the dorsal posture exclusively. In my practice I have used none other, and I have yet to see the first lacerated perineum resulting from such practice.

# Supporting the Perineum.

Although Goodell says "the word support the perineum is a misnomer," yet we should, and do, support it. The plan of supporting the perineum by steady pressure with the palm of the hand, which causes it to be hot, dry and unyielding, has been sufficiently condemned.

Dr. Reamy, of Cincinnati, recommends a plan of supporting the perineum by strapping his patient up in towels and having two assistants to draw while he *engineers*. It is so complicated and inconvenient that we doubt its utility.

The perineum should be supported by uniform pressure made with the *tips* of all the fingers of the hand. I have seen but little or no good from the so-called plan of imitating Nature as recommended by Goodell—inserting two fingers into the rectum and pulling forwards the sphincter ani, while at the same time exerting pressure on the head with the thumb of the same hand. The more the sphincter ani is drawn forwards the more the vaginal orifice

is closed, and to overcome this extra pains and time are required. There is but one circumstance that will warrant it—when the perineum is rigid and unyielding and pains very strong. Under such circumstances we always fear perineal rupture, and anything that will retard the advancement of the head is gladly accepted.

I do not mean to condemn the practice of inserting the fingers into the rectum, for much good is often accomplished by so doing, especially when the fingers can be hooked over the child's chin.

# Third Stage of Labor.

The medical profession is pretty well divided as to whether the placenta should be removed by vis a tergo, vis a fronti, by the two combined, or by the non interference plan.

Drs. Hunter and Taylor, of New York (Am. Jour. Obs., May, 1884), believe in the Strassburg method—that neither the cord nor uterus should be touched, but that the whole expulsion, both of the child and after-birth, should be a natural process, which it will be if let alone.

Dr. Hadden makes traction on the cord and at the same time compresses the uterus.

Dr. Mundé recommends: "As soon as the head of the child is expelled, make steady, gentle manipulation and friction of the fundus, and follow it up until the uterus has diminished in size, so that it reaches only about half-way between the umbilicus and symphysis pubis, and when no higher than that, and the organ has a globular outline, one might be sure that the placenta was no longer within the uterine cavity."

I believe with Dr. Garrigues, that we should conform as much as possible to the physiological process of Nature, not as Drs. Hunter and Taylor say, leaving all to Nature, but by aiding her in the best possible manner. This is certainly not done by making traction on the cord. I have tried all the plans recommended and have devised some of my own, but all are hushed in silence when compared with the great Crédéan method. Some hold that it increases the risk of hæmorihage, puerperal fever, etc., but reason, to say nothing of experience, teaches differently. It is well known that it lessens the probability of hæmorrhage, after-pains are much more infrequent, the great bug-bear adherent placenta is almost unheard of, and that, if puerperal troubles are influenced either way, the Crédéan method

has the advantage. Crédé's method is much lauded, and deservedly so. I sometimes think that those who maintain that the old way of removing the after-birth, by making traction on the cord, is preferable, simply do so for the sake of argument, but perhaps they have not yet learned the tact, and we should not censure them too strongly.

# Tying the Umbilical Cord.

This is a well-known subject, yet there is room for comment. I believe that ill-health has been stamped into many a child's system from its mother's womb simply from indiscretion or a lack of knowledge as to the proper time of tying the cord.

The total quantity of blood in an infant is about one-nineteenth the weight of the whole body, which would amount, in a child of eight pounds, to about six and three fourth ounces. Budin has shown by experiment that in every case where the cord was tied and cut immediately after the expulsion of the child that three ounces of blood would escape from the placental extremity of the cord, whereas, in late ligation none, or simply a trace, would escape. Thus we see that early ligation robs the child of about one-half the blood Nature intended it should have. It is not difficult, therefore, to understand why children of early ligation are "pale and apathetic," while those of late ligation are "red, vigorous and active."

Dr. Lusk (Science and Art of Midwifery) makes the following suggestions:

- 1. The cord should not be tied until the child has breathed vigorously a few times. When there is no occasion for haste arising out of the condition of the mother, it is safer to wait until the pulsations of the cord cease altogether.
- 2. Late ligation is not dangerous to the child. From the excess of blood contained in the fœtal portion of the placenta the child receives into its system only the amount requisite to supply the needs created by the opening up of the pulmonary circulation.
- 3. Until further observations have been made, the practice of employing uterine expression previous to tying the cord is questionable.
- 4. In children born pale and anæmic, suffering at birth from syncope, late ligation furnishes an invaluable means of restoring the equilibrium of the fœtal circulation.

If Nature designed that six ounces of blood were requisite for the welfare and to open up the pulmonary circulation of a sevenpound infant, six ounces, and no less, should be allowed. The physician has it in his power to allow three, four, five or six ounces, but if we are going to conform to the physiological process of Nature in one thing we must do it in all. Wait until the pulsations of the cord have ceased, then the pulmonary circulation will be opened up and the child will be prepared to oxygenate its own blood.

## Abortions.

Does malarial fever cause abortion? It may not be a well recognized fact, but is none the less true, that abortions occur much more frequently in some parts of the State, or even in certain localities in a county than in others.

In the eastern part of Rowan county abortions have reached an alarming degree. It is worth while to mention that this section is known as the malarial district of Rowan county. It is along the banks of the Yadkin river, and of creeks whose valleys are full of lakes and ponds, the very generators of malarial poison. I have dispensed to patients in this district in malarial seasons, upon an average, an ounce of sulphate of quinine aday for six weeks. In this district, I say, abortions are becoming very frequent. I believe abortions are said to occur once in about every one hundred and twenty pregnancies. I am not prepared to say what the per cent. would be if all the labors in this district were recorded, but by consulting my note-book I find that, for the last four years, fifteen per cent. of the lying-in women attended by me in this district were abortions or premature labors, to say nothing of the many cases seen in time to arrest and bring to term. The causes, of course, are variable, yet I verily believe that malaria plays its part.

Behrmann says (N. C. Med. Jour., January, 1886, p. 51):

- 1. Intermittent f ver is very common during pregnancy, and occurs more frequently in the second than in the first half.
- 2. Pregnancy has no influence over the length of interval between the attacks.
- 3. Intermittent fever coming on during pregnancy is difficult to cure, and when recovery has taken place relapses are very common. Severe attacks may terminate the pregnancy prematurely.

- 4. Parturition takes place on the day and at the hour at which the febrile paroxysm usually sets in.
- 5. During the first stage of labor the febrile paroxysm often shows itself, running the same course as during pregnancy. During the purperal period, also, attacks are very liable to occur, following the same type, except that the intermission is never complete.
- 6. Attacks of intermittent fever during the puerperal period do not render the woman more liable to other puerperal diseases.
- 7. The fœtus is affected by these malarial attacks as by any other elevation of temperature; its movements and cardiac sounds are affected in much the same way as when the mother is attacked by typhus fever.
- 8. A prolonged and severe attack of intermittent fever may lead to the early death of the feetus.
- 9. Intermittent fever in the mother may affect the intra-uterine fœtus with the same disease.

Only the third and eighth paragraphs here bear directly upon the subject before us. Under the third head he says: "Severe attacks may terminate the pregnancy prematurely," and in the eighth "a prolonged and severe attack of intermittent fever may lead to the early death of the fectus."

While I hold that malarial fever does, under certain circumstances, shorten the period of gestation, yet I am far from believing that all abortions that occur during an attack of malarial fever are caused directly by that malady While it may be the predisposing cause, the exciting cause is frequently something else.

Many cases of abortions are attributed to malarial attacks, when really the cause of abortion was quinine or some other oxytocic remedy. I have seen many cases that came near aborting simply from the use of quinine—one did abort.

I was called to see Mrs. E. at 4 p. m, suffering with bilious remittent fever; gave just enough quinine to break up the malarial attack, and by the time the system was brought fully under the influence of the drug, strong uterine contractions set in. At 7 p. m. I was summoned hurriedly, only to arrive in time to witness a premature delivery. I am confident that quinine was the exciting cause of the abortion in this case. The patient had suffered for days with the same malarial attacks, and had felt no symptoms of pains until the quinine had been taken.

## Other Rare Causes of Abortion.

I have seen four cases of abortion, and many others threatened, that were caused by the woman picking cotton in her apron, which was tied around the waist and left to hang in the shape of a bag over the distended abdomen. The combined weight, friction, irritation and heat over the abdomen might have had something to do with it, yet, I verily believe that the constant inhalation of the odor of cotton-seed was the true cause of abortion.

Santonin should not be given to pregnant women, for it acts upon the non-striated muscles like ergot, and will cause abortion.

Treatment.—In the treatment of threatened abortion we should first look for, and, if possible, remove, the cause. Viburnum prunifolium has proved itself to be the most reliable uterine sedative. Many cases have been saved, even when there was quite severe hæmorrhage, by the free administration of this remedy.

When all efforts fail and abortion is inevitable, the sooner the end is reached the better; but here, again, we must conform as nearly as possible to Nature's process. If hæmorrhage is profuse and there is just cause for alarm, then the uterus should be emptied immediately. We frequently see the fætus and membranes coming away intact, but in many cases the secundines are left in the uterus. In such cases, especially in early abortions, we may expect trouble if we attempt to remove them at once.

# When should the Secundines be Removed?

The earlier writers advised the expectant treatment of retained portions of the ovum—Churchill, Leishman, Meigs, Bedford, Zyler, Smith and Hodge, all advise the expectant plan. But when we consult late writers we find quite a diversity of opinion. Barnes (Southern Clinic, June, 1884) says that the first indication is to empty the uterus. Playfair tampons the vagina and gives ergot in cases of alarming hemorrhage or of undilated os uteri. If the os still remains closed, he employs sponge tents for its dilatation, even though there be no urgent symptoms. Prof. A. R. Simpson advocates the use of a sponge tent, previously disinfected, as soon as abortion appears unavoidable. He also gives ergotine hypodermically. Schroeder employs the tampon if the hemorrhage is alarming or the ovum is retained.

Angus McDonald says that in the ordinary run of cases, in which the hæmorrhage is not especially profuse, we ought to trust to ergot by the mouth, or ergotine subcutaneously, and that we shall most probably find that all will go on all right, except that we shall have to hurry the conclusion of the case with slight manipulation, and that wholesale imperfect plugging of the vagina is to be strongly deprecated.

Lusk endeavors to empty the uterus as soon as possible. If the cervix is open, he uses the finger; if it is closed, he employs the tampon, giving it three trials, each tampon being left in the vagina twelve hours. If, after removal of the third tampon, the cervix is undilated, he resorts to sponge tents.

Z. Johnson Alloway, of Montreal, advocates the immediate removal of the secundines with the curette, not the finger, either with or without previous dilation of the cervix.

Dr. Munde gives it as his opinion that the future safety of the patient demands that the secundines shall be at once removed after the expulsion of the fœtus in every case of abortion in which such removal can be accomplished without force sufficient to injure the woman.

Dr. W. H. Farr is in favor of the immediate removal of the membranes after abortions. He employs the curette forceps, and opposes the use of the finger as being dangerous.

Dr. Walter Coles, of St. Louis, opposes the removal of the membranes as a matter of routine in every case of abortion. If the immediate symptoms are urgent, the placenta should be at once removed by the finger, forceps or curette, the cervix having been previously dilated if necessary. If there are no urgent symptoms the expectant plan should be pursued. Dr. Coles' paper was read before the St. Louis Obstetrical and Gynæcological Society. A general discussion followed, and it was evidently the sense of the Society that the expectant plan is safer than the immediate removal of the secundines by manual or instrumental means.

From the foregoing extracts it is seen that dilatation of the closed cervix with tents and extraction of the secundines with the finger or forceps, is the usual method of procedure of those who advocate the immediate removal of retained portions of the ovum.

Mundé claims that the manipulation is so free from danger that every physician can employ it.

Thomas writes: "There is always danger in dilating the cervix with tents, though it is by no means so great as to make one hesitate in employing it."

It appears, then, that the first part of Munde's manipulation is attended with danger. Let us now consider the extraction of the membranes by the finger, curette or forceps.

Barnes, Playfair, Simpson and Lusk deprecate the use of the curette or forceps as being hazardous. They employ the finger and consider it safe and satisfactory. Alloway and Farr, on the other hand, regard the use of the finger as highly dangerous, and claim that the curette gives better results. We thus have testimony from the gynæcologists themselves that the forcible extraction of the secundines, whether manual or instrumental, is not free from danger.

Having shown that active interference in imperfect abortion is a dangerous procedure, we have to enquire into the necessity of the operation. If the placenta does not soon follow the fœtus, or is not foreibly removed, what happens in a majority of cases? Published statistics on this point would be valuable and interesting, but, unfortunately, there are none. We must rely on our individual experience for an answer to this question. I think that the practicing physicians will bear me out in the assertion that the great majority of these cases take care of themselves, or at least require but little assistance from us. The placenta comes away within the next twenty-four hours, or within a few days. By far the larger proportion of abortions, as of deliveries at term, fall to the care of the general practitioner, the family physician; only a very small percentage reach the gynecologist in the first instance. The latter sees the exceptional cases, the cases which have resulted badly, and therefore seek his special skill.

Having argued that active interference in abortion is, as a rule, unnecessary and dangerous, it follows that I agree with those who follow the expectant plan of treatment. This does not mean, however, that abortions should be neglected. I have frequently left cases ten, twelve, and even twenty-four, hours before removing the secundines, where there were no alarming symptoms from hamorrhage, and have never seen a bad symptom result from such practice, but almost invariably find the os dilated, and, in the majority of cases, the placenta lying in the vagina or presenting at the external os. After the secundines are removed the very strictest

Listerism should be observed in every way. Bichloride of mercury is the most reliable antiseptic for intra-uterine irrigation where such treatment is necessary, yet it should be used with caution, for, though generally safe, it is not entirely free from danger.

Hofmeier, in speaking of the ill-results from the use of this drug, says (Am. Jour. Obs., May, 1884, p. 518): "I wish to note, in the first place, as to possible danger of even weak solutions of corrosive sublimate. . . . Our case was that of a puerpera, recently delivered, with complete rupture of the perineum extending very high up; the rent was stitched up, while the wound was irrigated with sublimate solution 1: 1,000. About the fifth or sixth day the patient was attacked by moderate fever with low pulse, and died on the twelfth day after a very fetid diarrhea. The autopsy showed extensive gangren us destruction of the entire mucous membrane of the large intestine, continuing also, though of lesser intensity, into the ileum, where it gradually terminated. Examination of the intestines at the Patho-Chemical Institute clearly demonstrated the presence of mercury in the tissues.

"A similar case is reported by Stadtfeldt in a recent number of the Centralblatt f. Gyn. A puerpera, having some fever, was given on the fifth day after labor an intra-uterine irrigation of sublimate solution of 1:1,500. During the irrigation there was slight collapse, and five days later increased diarrhea, vomiting and suppression of urine. The case terminated fatally. In the large intestine there were likewise numerous ulcerations, and, besides, parenchymatous nephritis.

"These two cases, in which comparatively small quantities of a moderately concentrated solution of bichloride of mercury were employed, must certainly impress upon us the need of the greatest caution in its employment in puerperal women."

In giving intra-uterine injections of any kind we cannot be too careful. The temperature of the water, strength and per cent. of the antiseptic used, condition of patient, kind of instrument and how to use it—this is very important, for an unskilled hand may tear open the mouth of veins that lie ready to absorb any septic matter that may be in the uterine cavity and convey it directly to the heart and brain, and, should such be the case, what is the result? The patient is killed as effectually as Bruno killed Lord Byron. Thorough disinfection of the hands and instruments is of vast im-

portance. The present state of bacteriology must convince even the most skeptic and conservative physician that soap and water exercise not the slightest influence over the microbial organisms, and that the true antiseptic agents have to be resorted to. Anything that absorbs, neutralizes or destroys putrescent effluvia, miasmata or contagia, and thus removes the cause of infection, are disinfectants. Boric acid, chloride of zinc, bimodide of mercury, carbolic acid, permanganate of potash and muriatic acid have all been tried and found more or less valuable for disinfection, but here, again, experience shows that sublimate solution is superior to them all.

If physicians would observe the strictest cleanliness and antiseptic measures in every way about the lying-in chamber we would hear less of septic troubles in puerperal patients.

#### GYNÆCOLOGY.

Although Hypocrates gives us the first literature on the subject of gynæcology, there is no doubt, if such could be had, that Egyptian annals would show that it was practiced long before his day. Experience has been added to experience, research upon research, volume upon volume, has been presented to the profession by those most skilled in the practice, until to-day gynæcology stands as one of the first branches of medicine.

The subject of gynæcology presents a wide field for those skilled in making theoretical advances. Much, indeed, has been said and done, but, with a just reverence for our fathers and forefathers who have handed down to us such a vast amount of knowledge on the subject, we feel safe in saying "the half has not been told." Many have written, many are writing to-day. Everyone who writes a treatise on the subject thinks his the best. We might say, when comparing these works—

"There's but one wise man in the world,
And who d'ye think it be?

'Tis this man, that man, t'other man,
Every man thinks 'tis he."

Retroversion of Uterus where Fundus is Bound to Hollow of Sacrum by Peritoneal Adhesion.

This form of uterine displacement is very difficult to treat, espe-

cially when it has existed for a long time. When the adhesion is very limited and recent, it may be broken up and a favorable prognosis can almost invariably be given, but when years have elapsed and the adhesion is extensive, it would be better to adopt the do-nothing treatment, were it not for the fact that sterility is the rule in nearly every case. The very forcible pleading of husband and wife in such cases, the great desire for offspring, make us sometimes undertake to remove, if possible, the cause of sterility.

The only plan of treatment that I have found to result in any permanent relief is the forcible separation of the uterus from the sacral wall. This is done with a steel sound made for the purpose, and which, I have no doubt, is in every day use in the profession. After improving the general health as much as possible by general treatment, the os is sufficiently dilated with tents or by the use of uterine dilators, the patient anæsthetized and placed upon the table on left side with knees drawn up to chest. Erich's or Sims' speculum (Erich's is better) is placed in the vagina, the tents removed and the aforenamed sound is introduced up to the fundus. Then, taking held of the sound with both hands, the uterus is torn away from the sacral wall and pressed forwards until it can be felt in the suprapubic region; the uterus is then fixed by the use of cotton or sponge tampons and kept so for from eight to sixteen days, according to circumstances. After inflammation has subsided, Hodge's pessary, or better, Smith's modified Hodge, is used to keep the uterus in position. This should be worn for an indefinite periodat least until there is reason to believe that the uterus has been fixed in its normal position. This having been done, and the necessary tone given to the nervous system, it is more than likely there will be no further trouble.

I do not claim that this is a new mode of treatment; it has been practiced for years, and, perhaps, if Herodotus and other ancient writers were living to-day, they could tell of such treatment in their day. Aïtius (Thomas on Diseases of Women) speaks of a uterine sound, passed into the uterus and employed as a repositor, and advises that displacements of the uterus should be corrected specillo et digito.

## Pelvic Cellulitis.

Pelvic cellulitis should properly be classed under the head of

obstetrics, as nearly every case is a result of parturition, but as there are exceptional cases, we will speak of it under the head of gynæcology.

As this is a well-recognized disease, and one that has been so successfully treated, I shall not rehearse what others have written, but wish to report a case, the like of which is seldom seen by the general practitioner.

The patient had been delivered by a midwife, was not allowed the recumbent position during the second or third stage of labor, but was forced to stand on her feet and hold to the bed-post. After the placenta had been withdrawn by the cord blood poured profusely from the uterus, the patient fell in syncope, and was then laid upon the bed. I was called in five days after delivery, and found the patient with high fever, abdomen much swollen and tender. There was slight peritonitis with all the signs of pelvic cellulitis. She informed me that the midwife had handled her roughly, that she had "gouged and torn" her in a fearful manner. With all the aid I was able to give she went on from bad to worse, until her abdomen was a mass of abscesses. I made a free incision in left inguinal region, which discharged an enormous amount of pus. Soon there were two other points, one in median line, and the other in right inguinal region, that had to be opened. Still the alarming symptoms did not abate. Then there was a large amount of pus discharged per rectum. I was sure this would give the desired relief, but not so. Two days later I found pus presenting about right labia minor; this having been freely opened and the pus allowed to escape, the alarming symptoms began to subside.

Although this point discharged pus for a month or more, my patient convalesced steadily and made an excellent recovery.

The only feature that is worth noticing in this case is the number of points of exit by which the pus escaped—three points through the abdominal wall, through rectum and pudendum.

Dr. Savage (Thomas on Diseases of Women) reports a case in which the points of opening were vagina, bladder, rectum and ingainal region.

Treatment was directed to keeping up patient's system as much as possible. Internally I used iron, quinine, nux vomica, ergot, opium and stimulants when necessary.

Alexander's Operation for Retroversion of the Uterus.

Retroversion of the uterus can generally be corrected by the use of cotton or sponge pledgets or the ordinary retroversion pessaries, but there are exceptional cases in which, on account of pain and tenderness, the patient is unable to wear any hard instrument.

Sometimes, by using vaginal injections of strong solution of kali brom., the tenderness and pain will subside sufficiently to enable the patient to wear a hard rubber instrument. But when all such efforts fail, Alexander's operation offers the best chance of relief. This consists in exposing the round ligaments at the external ring, and drawing them out through the ring, thus lifting the uterus; then securing the ligaments near the external ring, thus fixing the uterus in its new position. It is better, in my opinion, to cause the ligaments to attach to the face of the pubic bones between the spine and symphysis, instead of to the loose tissue, for this tissue, being in itself yielding, might in time give way and allow the uterus to again fall back into hollow of sacrum.

After completing the operation tampon the cul-de-sac to support the ligaments. Keep the patient in bed three, four or five weeks, then introduce Hodge's or Smith's pessary, and let this be worn for at least two months, when it will be found that the ligaments are capable of holding the uterus in its normal position.

# Amenorrhea and Dysmenorrhea-New Treatment.

It is claimed by Chéron (Philadelphia Medical Times) that the action of santonin on the vascular system, and its effects upon the muscular fibres, make it useful in amenorrhœa and dysmenorrhœas especially in those forms where the malady is dependent upon adynamia, anemia and chlorosis, and more especially when the menses are as yet imperfectly established. It not only relieves the retro-ovarian congestion, but acts also as a tonic to the general system. Three-fourths to a grain should be given ter in die

Retro- or Anteversion of the Uterus, Complicated by Vesico-Vaginal Hernia or Cystocele.

Much time has been spent in trying to devise some plan by which to overcome this much-dreaded trouble which old physicians say has been treated by them for years without any apparent benefit—a trouble for which no physician or gynæcologist could, heretofore, give a favorable prognosis. In the early days of my practice I met many cases of this obstinate disease. I tried to give relief by every conceivable method—used Meig's ring, figure of 8, Thomas' anteversion and Gariel's air pessary, but nothing gave satisfaction. I consulted older physicians, but they simply discouraged me by telling of their sad disappointment and ill-success in treating this trouble. Finding that there was nothing to be done but follow the old routine of treatment, I set to work and had an instrument made which is giving entire satisfaction. It fixes the uterus in its normal position, no matter what the displacement may have been, whether anteversion, retroversion, prolapsus uteri—either of the three degrees—while at the same time it lifts the bladder and roof of the vagina to their normal position and keeps them there.

The instrument is not difficult to introduce, and when in position there is no hard substance against which the vaginal portion of the cervix can press. It is indestructible, and when in position it cannot come away of itself.

This instrument is not only useful in the above-named disease, but is valuable in any case of vaginal hernia where the tumor is formed in front of the broad ligaments. These tumors may be formed by a prolapsed vagina, a portion of omentum, a portion of intestine, or omentum and intestine may come down simultaneously and form the tumor.

## An Anomalous Uterus.

The patient is forty years of age, the very picture of good health, masculine appearance, considerable dark moustache, married eighteen years, but has never borne children.

She suffers at times with extreme nervous excitement, palpitation of the heart, etc. All of these symptoms are believed to be the result of sexual excitement without reaching a healthy culmination. The cause of this is explained in three words—an impotent husband.

The husband was advised to make frequent attempts at sexual intercourse with a hope that the desired result might finally be brought about. But this only excited the wife and made her nervous attacks more frequent and severe. The symptoms growing more and more alarming, I was called in. I ascertained that she was almost invariably seized with these attacks immediately pre-

ceding or following menstruation. Supposing that the cause might be, in part, due to some interior trouble, I made an examination and found the following: The hymen was only partly ruptured, the vagina small and rigid, and it was with difficulty that the uterus could be satisfactorily examined, but, by the use of Erich's speculum, a full view was obtained. It was hard to determine what was presenting-a fold of lax membrane enveloping a hard body. A fold of membrane covered the vaginal portion of the uterus similar to the prepuce in the male. When this had been stripped back a normal cervix presented; it was not unlike a short and most perfect male penis. We can hardly say whether, if the husband had been competent, this would have been a cause of sterility. I asked the patient to go with me to Dr. Summerell's office, where a consultation was had. We were unable, under existing circumstances, to say whether the abnormal condition of the uterus would have prevented conception or not.

As to treatment, it would have been an easy matter to divide the membrane, which would have laid bare the cervix, but we thought as the patient was nearing the menopause and the husband impotent, we would let it alone. I afterwards used a small ring pessary for a long time, which kept the fold drawn back over the cervix, and now, on examination, the os presents, the fold of membrane being somewhat retracted. The menstrual periods are passed with little or no pain, and the general health of the patient remains good.

A GREEK MEDICAL WORK 2,000 YEARS OLD.—In the last number of the Classical Review F. G. Keryon, of the British Museum, who last edited the newly discovered papyri of Aristotle and Herondas, describes another similar manuscript recently obtained for our national collection, which contains an ancient treatise upon Medicine by a Greek author, probably of Alexandria. The work, which has apparently hitherto been lost, is of much interest. Among the writers cited are Euryphon, of Cnidus, Herodicus, Hippocrates and Timotheus.—British Medical Journal.

# SELECTED PAPERS.

# THE TREATMENT OF STRANGULATED HERNIA.

By W. B. De Garmo, M.D., Professor of Special Surgery (Hernia) in the Post-Graduate Medical School and Hospital.

It is probable that there is no branch of surgery wherein so many lives have been needlessly sacrificed as in that department which relates to the treatment of strangulated hernia. This is not due to any shortcoming on the part of the surgeon, but to the fact that he is not called to the case until too late to restore the parts involved to their normal condition.

The unfortunate part of the whole subject is that the general practitioner does not fully realize the danger involved in delay, nor does he feel competent to carry out anything but the strictly medical treatment of the case.

The sooner the general practitioner recognizes the fact that the medical treatment of these cases leads only to complication and death, the sooner will the safety of the patient be secured. The delay involved in trying one remedy after another is fatal, while, on the other hand, if looked upon as a purely mechanical trouble requiring immediate relief, there is no reason why a large mortality should follow this accident.

The theory that muscular spasm is an active cause of strangulated hernia is thoroughly exploded, and therefore little can be expected from remedies given with the view of relaxing this supposed contraction of the hernial opening. Its origin is, in the majority of cases, due to the forcing of a mass of intestine or omentum through an opening of smaller calibre. The surrounding structures are usually of inelastic fibrous tissue, and while compression of the neck of the tumor does not impede the return flow of blood from the protructing parts, all goes well; the venous circulation is easily obstructed, however, and, the arteries having more resistance, the blood is still pumped into the parts, but not fully returned. Congestion and enlargement of the displaced viscera result, and the unyielding constricting band is thereby tightened until all circulation is shut off, and death of the incarcerated part takes place

We have here, then, as purely a mechanical difficulty as would result from tying a strong cord so tightly round one's finger as to stop all circulation, with the addition, in the first instance, of dealing with parts whose freedom is essential to continued life. Why, then, lose valuable time in experimenting with internal remedies?

It would be a waste of words to even name the remedies which have been recommended from time to time in the medical journals, and only one will be considered.

Opium in its various forms has held the field for many years, and has cost many a sufferer his life. This sacrifice has not been due to the direct effect of the drug, but owing to the relief from pain which it has afforded, and consequent delay. The physician finds his patient in extreme agony, and naturally (rightly so) seeks the first means of affording relief. Now, if he would only avoid being deceived, and allowing his patient to be deceived, by the relief which the opiate affords, all would be well; but such is not usually the case. The minds of the patient and the doctor are usually relieved as pain subsides, but dangerous pathological changes are going forward with the same rapid strides as before the opium was administered. It is perfectly right to afford relief from pain at the earliest moment practicable, but rapid preparations should be made to release the bowel from the fatal band by which it is surrounded.

This brings us to the consideration of means of relief to be tried before operating. They can be briefly disposed of, for they are few in number, and might be tabulated as follows:

- 1. Opiates (morphia, hypodermically) for relief of pain only.
- 2. Sulphuric ether applied to the tumor.
- 3. Taxis gently and intelligently applied.
- 4. Taxis under anæsthesia.

The caution having been sounded regarding the use of opiates, except to relieve pain while something more rational is being done, we will proceed at once to the consideration of the other means which it is justifiable to try before using the knife.

I have for many years looked upon the early application of ice as a most valuable method of reducing strangulated hernia—this only in the earlier stage, before the vitality of the parts has been seriously impaired; but after the experience of Finkelstein, who

reduced 54 out of 58 cases by the external application of sulphuric ether, I am led to give this preference over the use of the former substance.

His method is as follows: The hips are well elevated, the parts exposed to the air and anointed with sweet oil. A tablespoonful of ether is then poured over the tumor every ten or fifteen minutes. The intense cold produced by rapid evaporation is believed to act not only upon the engorged blood-vessels, reducing their size, but upon the bowel itself, increasing peristaltic action.

Here is a method which can be used by the practitioner who first sees the case, without fear of doing harm, while he is preparing to operate.

Regarding 'taxis, however, it cannot be said that the average physician may not do great harm by its use, although the majority feel that this is the one thing that they are well qualified to do. Rude manipulations, based only upon the one idea of pushing something back into the abdomen, accomplish very little, except to carry the parts up on the outer surface of the abdominal wall.

I wish that I could teach every physician in the land a very simple method, which has proven so successful in my practice as to establish its value beyond all question. It is very simple and is as follows: In the first place, try at the very outset to assure your patient that you are not going to add to his torture, and confirm this in his mind by handling the tumor with the utmost gentleness. By this you will secure his co-operation instead of unconscious resistance. It is better to place your patient upon an ordinary kitchen table, the legs at one end being elevated six to ten inches, than to make attempts at reduction with the patient in bed. Having the hips elevated and the head and shoulders low, press the abdominal contents well up toward the chest. Now carefully work the fingers of one hand around the neck of the tumor where it issues from the abdomen, the design being to get it away from this point as much as possible. Hold the bulk of the tumor in the palm of the hand, if possible, and instead of trying to push it back into the abdomen, try to draw it farther down. If the case is one of inguinal hernia, grasp the canal and its contents gently, but firmly, between the thumb and fingers of the disengaged hand, and while making traction and compression with the hand that is holding the tumor, manipulate the canal by a "kneading" motion with the fingers of

the other. This must all be done without adding materially to the patient's pain, and will succeed, in many instances, where more violent means have failed.

It is the design of this method to lengthen out, by traction, the mass that is blockading the canal, and then, by compression, to empty the engorged blood-vessels and displace imprisoned gases, thus favoring the final reduction of the entire mass. This is further aided by the action of the fingers over the canal, which tend to work the bowel free at the point of constriction. In enormous scrotal hernias that cannot be grasped by the hand, the pure rubber bandage may be brought to our aid in making compression.

In femoral hernia, where we have a very short canal to act upon, I have modified the method in the following particulars: The hand for traction and compression is used as before described, the tumor being drawn in a line at right angles with, or directly away from, the leg. With the fingers of the other hand the neck of the tumor is "kneaded," and, in addition, from time to time the abdominal wall immediately above the hernial opening is gently, but firmly, pressed deeply into the pelvic cavity by the ends of the fingers carried just over the brim of the pubes. This pressure deep into the pelvic cavity displaces the viscera in the immediate vicinity of the internal hernial opening, and doubtless causes some traction apon the bowel from within.

While this, like every other non-operative method, will fail in some cases, I am convinced that its careful use would save many operations and save many lives, because it could be carried out by men who would not or could not operate.

Taxis under an anæsthetic is, like the use of opiates, an element of real danger to the patient. Anæsthesia aids only to the extent of doing away with unconscious resistance on the part of the patient, and of allowing the physician to use an amount of force that could not otherwise be tolerated. In the first instance it is of unquestionable value; in the latter a far greater danger than can be appreciated by the inexperienced. Anæsthetics should be used only when everything is ready for the operation, and then the method of applying taxis already spoken of should be adopted, and the same gentleness should be exercised as when the patient is in a conscious state. The attempt having failed, the operation should be proceeded with at once. There is far more danger in rude and

violent handling of a strangulated hernia than there is in the operation for its relief. The anæsthetic should be given with the understanding that an attempt is to be made to reduce the tumor under its effects, but that, if this fail, relief will be afforded by operative means before consciousness is regained. This removes, to a great extent, from the mind of the patient the dread of the operation, for there is the hope that it may be avoided, and if it is performed he is rejoiced, when again conscious, to find himself relieved and that it is all over.

It is unfortunate that medical men have been taught that operations for strangulated hernia are among the most difficult and dangerous in surgery. It is far from the truth, if the operation is done promptly after the case is first seen, and this impression is derived from those cases which have become complicated and difficult solely as the result of delay.

In inguinal hernias the constricting band will, in the majority of instances, be found at the external abdominal ring. To reach it, only one small, superficial artery is divided, so small that in many cases ligation is not necessary, even though advisable. In femoral hernias the constriction is almost always at the edge of Gimbernat's ligament, and here, again, we have only to cut through the skin and superficial fascia.

In the older writings the question is discussed as to just what symptom should be taken as evidence that operative interference should be no longer delayed. It is pretty uniformly conceded, even by these writers, that stercoraceous vomiting should be the limit of delay. I am confident that those who have had an equally large experience with these cases will join me in saying that he who waits for this symptom at the present day will not only be sure to have an unnecessarily large death-rate, but will show himself unworthy of the trust placed in him by the patient.

In well-marked acute strangulation the necessity for an early operation is imperative. It is safer for an unskilled physician to undertake the operation than to delay twelve, twenty-four, or thirty-six hours for the most skillful operator. Delay means death.

To those who have never done the operation the following considerations will be pertinent:

1. Instruments necessary. 2. Asepsis and antisepsis: (a) of the operator and assistants; (b) of the patient; (c) of instruments.

The incision.
 Opening of sac.
 Treatment of intestine.
 Treatment of omentum.
 Completion of operation. Radical cure.

The instruments which are absolutely necessary for the performance of this operation may be very few and simple in character; scalpel and artery clamps could be made to serve every purpose, if others could not be obtained. For greater convenience, however, the following should be at hand: Scalpel, half-dozen artery clamps, two retractors, a grooved director, anatomical or thumb forceps, scissors, and perhaps a Cooper's hernia knife; in addition to these, needles, material for ligatures and sutures, sponges, iodoform-collodion, iodoform gauze, bichloride gauze, and bandages

If the operation is done early, you have to deal with parts in an aseptic condition, and it should be your greatest care, from first to last, not to introduce septic matter into the tissues. This process means beginning with the operator and finishing with the patient, and putting everything and every person directly connected with the operation in strictly aseptic condition. The operator's and assistants' nails (most convenient carriers of poison) should be trimmed closely and the hands scrubbed thoroughly, after which they should be immersed in a solution of bichloride. The parts in the field of the operation should be shaved, scrubbed and washed with bichloride solution. If the instruments are boiled for twenty minutes shortly before the operation, it matters little whether you keep them in a 1:20 solution of carbolic acid or boiled water during their use. My preference has been for the carbolic solution. It is better that your sponges be new, the expense being only a trifle for the three or four needed. Having made yourself, your patient and surroundings absolutely clean, there is no need of using antiseptic solutions in a wound where no septic matter exists, and their use only delays subsequent healing, and it is advised that only boiled water be used for irrigation. In most instances little or no irrigation is required.

In inguinal and femoral hernias of moderate size the primary incision should be over the bulk of the tumor, i. e., in the first instance from a point directly over the external ring downward, and in the latter from a point over the lower border of Poupart's ligament downward, the object always being to reach the neck of the tumor as quickly as possible. In umbilical hernias of enormous size it will be found easier to approach the neck of the tumor from

an incision made to one side of the median line. In the centre of such hernias the tissues are thin, and the sac, skin, and frequently intestine, are so closely united as to make it almost impossible to incise one without serious damage to the other.

When you have exposed the hernial sac it serves as a guide to the opening through which it protrudes, and at this point will frequently be found the constriction. The question now arises whether or not you should cut this band and reduce the contents of the sac without seeing them. In former times the question was discussed freely as to which was the safer plan, to open the sac or not; but at the present time it would seem that there should be no question on this point. Opening of the sac does not materially increase the risks of the operation, if you are a clean operator, and it does enable you to know whether its contents are in a fit condition to return to the abdominal cavity. After strangulation of only three hours' duration I have seen the bowel so black that I should not have dared return it to the abdomen without first subjecting it to treatment to aid the recovery of its circulation. When the intestine is found in this condition, that is, dark purple or chocolate color, without actual perforation, I know of nothing better than the application of clean towels wrung out of water as hot as can be tolerated by the hand, and changed every few moments. I have delayed the operation as long as half an hour to carry out this measure, and with the most gratifying results. If sloughing and perforation already exist, the inexperienced operator will do better to fasten the gut in the wound, forming an artificial anus, than to attempt intestinal repair. Pieces of omentum found adherent within the sac, or that appear in bad condition, should be properly ligated and cut off. The principal danger attending the removal of masses of omentum has resulted from homorrhage occurring after the operation has been completed. This has been caused either by including large masses of omental tissue within a single ligature, or the too early softening of catgut used for tying it off. This danger can be avoided, first, by spreading out the omentum so that each vessel can be seen and tied separately, and, second, by using aseptic silk instead of catgut.

The final question for our consideration is how to so complete the operation as to secure for our patient the best possible chance of a

permanent cure. In order to do this we must place the inguinal canal in as nearly a normal condition as possible.

It is not possible at this time to enter into the consideration of curative operations, their merits and their faults. Since 1887 I have followed the method of Barker, of London, and, while it is by no means all that might be desired, it is in my opinion the best operation at our command. Briefly, it consists in cutting off the sac as near the internal ring as possible, and then stitching up the canal with heavy braided silk. These sutures are left permanently in situ, and union of the wound by first intention is secured by accurate approximation of the skin and sealing it up with iodoform-collodion. The first dressings are left on for ten or twelve days.

I have had no trouble in using silk for all parts of the operation since I have prepared it myself. This is done by boiling for twenty minutes in a carbolic solution, and then keeping it in alcohol until it is required for use.

Loops of bowel that have been subjected to pressure for some hours are, even after returned to the abdomen, liable to a partial paralysis. For this and other reasons it is deemed best to give a mild saline cathartic on the second day following operations for strangulated hernia. This prevents impaction of faces at the point of injury, and it relieves the engorged blood-vessels as well. The use of all opiates is discouraged, unless urgently demanded to relieve pain.—Post-Graduate.

#### BICHROMATE OF POTASSIUM AS AN EXPECTORANT.

By Jos. H. Hunt, M D. (Read before the Medical Society of the County of Kings, N. Y., April 19, 1892.)

It was during the winter of 1875 that I was in attendance upon a child two years of age, who was ill with bronchitis. Though seventeen years have elapsed I well remember the child as it lay then, breathing at the rate of 90 respirations per minute, pulse too rapid and feeble for me to count it, countenance cyanosed, veins of forehead and neck prominent and turgid, and a cool moisture covering the little sufferer's body. The child was suffocating and seemed to me to be dying. I called for consultation, and my friend,

Dr. Alexander Hutchins, responded. He produced from his pocket a powder, telling me that it contained 1 grain of the bichromate of potassium, triturated with 9 grains of sugar of milk, directing me to place it in a tumbler with 20 teaspoonfuls of water, and give of the solution a teaspoonful to the child every ten minutes till the symptoms were modified. That was in the evening, and in less than two hours the symptoms of suffocation were so much relieved that I was able to leave the child for the night with directions that the medication should be kept up at one hour intervals. The change in the condition of the child when I visited it the next morning was surprising. The respirations had dropped to less than 40; the child had been able to sleep and take some nourishment; the cough, which before was dry and barking, had become looser, and the lung, which the night before hardly admitted any air, was now filled with loose moist bronchial rales. The aspect of the case was changed from that of a child evidently dying from what we then called capillary bronchitis to a plain case of bronchitis, which went on to successful recovery.

This, gentlemen, was my first introduction to a drug which has ever since formed a part of my armamentarium. For sixteen winters I have used bichromate of potassium, a substance which we are apt to think of on account of its chemical properties; or, if included at all in our materia medica, it is an escharotic, a rather mild substitute for the more active chromic acid. Medical literature contains far more written upon its poisonous than on its remedial qualities, indeed, except for occasional allusions to its use in diphtheria, in the treatment of which one author says it corresponds in its action in many respects with bromine, we have been able to find but little in English literature, though considerable has been written by the Germans and French. The only article of importance I have been able to find is that of Alfred Drysdale, M.B., of Cannes, France, entitled, "An Attempt to Ascertain the Sphere of Action of Bichromate of Potassium," published in the Medical Press and Circular, London, 1886, which I advise those of you who are interested in the subject to read. He reviews about all that has been written on the subject before him, including the experiments of the Austrian Proving Society, which made extensive experiments with bichromate of potassium on animals in 1844, some of the members,

in their enthusiasm, even going so far as to record experiences where they had studied its effect upon their own persons.

The conclusions reached by Dr. Drysdale are that "bichromate of potassium has a specific action or elective affinity for certain organs and tissues," and that "its action is most marked on the mucous membranes of the respiratory passages, nose, eyes and mouth, and on that of the stomach and intestines; on the skin, liver and kidneys, and lastly, the fibrous tissues, periosteum and bone. No specific relation can be traced with the serous membranes, with the genital organs or the cerebro-spinal system. Its sphere of usefulness is, therefore, among disorders of the organs and tissues above enumerated, viz: mucous membranes of the respiratory passages and alimentary canal, the liver, kidneys, skin and bones."

My experience with the remedy has been confined to catarrhal conditions of the respiratory mucous tract. I have not kept histories of cases, and can, therefore, only generalize and say that for the past fifteen years bichromate of potassium has been my principal agent in treating this class of diseases in infants and young children. In medicinal doses it is practically tasteless, and in my hands more efficacious than the nauseous chloride of ammonium which most of us use in about the class of cases in which I use the bichromate. The experience in my first case has been more than once repeated, though it took a second case almost as bad as the previous one, to which I again called Dr. Hutchins in consultation, with an equally gratifying result, to give me the confidence in its utility which I now have.

I like the old term alterative. I know it has been discarded by modern therapeutists as non-scientific; but while it may be so, it expresses a something which we all intuitively understand, and, clinging to the old word, I would describe the therapeutic action of bichromate of potassium in these cases as an alterative expectorant which a slight increase in the dose makes more stimulating and may become an irritant emetic.

You all know the salt, in its crystalized form of garnet-red prisms of resplendent lustre, which is soluble in twelve parts of water at ordinary temperature and in equal parts of boiling water. It is best administered internally in the form of an aqueous solution, but this is liable to decomposition if kept too long. I have for years kept it in the form of a trituration of one part with nine with sugar

of milk, which I dissolve in water at the bedside. Lately some of our tablet-makers have been putting up tablets of this triturate, each tablet containing 1-50 grain, which is a minimum dose for a child one year old. It is soluble in alcohol and is rapidly decomposed in glycerine. I find it taken and borne readily by the youngest infant, unless given within a few minutes of feeding with milk, with which it seems to be incompatible, so that when the administration of the medicine is at very short intervals, milk-feeding must be, for the time, suspended. I am accustomed to give it to a child one year old in 1-20 grain doses, at first at frequent intervals, when the symptoms of suffocation are distressing or the breathing very rapid; I administer a dose every fifteen or thirty minutes, until I see some amelioration of the symptoms, and then diminish in frequency to one hour intervals. If the interval is prolonged more than one hour the effect seems to die away.

Drysdale says that not more than \( \frac{1}{4} \) grain should be given per day, but I have exceeded that amount without bad effects. I am accustomed to instruct the attendants to diminish the dose if it acts as an emetic, but not to diminish the frequency of its administration. When it is rejected by the stomach it is without nausea or after-irritating effect. Trituration seems to make it less irritating to the stomach. I find that when I write a prescription for one grain of bichromate of potassium to be dissolved in 20 drachms of water, the attendants will tell me that it seems to irritate the stomach and is apt to be rejected, whereas, if I give 10 grains of the powdered triturate I have described or a corresponding number of the 1-50 grain tablets, to be dissolved in 20 spoonfuls of water, spoonful doses are almost never rejected. In many of my families it has become the household remedy. The mother keeps some of the powdered triturate in the house, and when the baby has a little coryza or influenza, or, as she expresses it, "catches cold," she prepares some of the solution and administers it instead of the traditional goose-grease and molasses, which some of our early childhood days recall with loathing.

It is a frequent occurrence for me to get letters from former patients residing at distant out of town points, begging me to send them some of that powder which, when dissolved in water, made that beautiful yellow solution which I used to give the baby.—

Brooklyn Medical Journal.

#### EDITORIAL.

#### THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

THOMAS F. WOOD, M.D., Wilmington, N. C., GEO. GILLETT THOMAS, M.D.,

Original communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the Journal, by sending the address to this Office. Irompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to Thomas F. Wood, M.D., P. O. Drawer 810, Wilmington, N. C.

#### THE STATE BOARD OF HEALTH.

The death of Dr. Thomas F. Wood made vacant the office of Secretary of this useful body. The peculiar character of the work of such organizations makes its Secretary its most important office, and we congratulate the friends of the Board and of efficient sanitary work that Dr. R. H. Lewis, of Raleigh, has been elected to fill the vacancy—predicting for his career one of energy and great usefulness and in keeping with his reputation. But the Secretary and the body of workers to which he is attached needs the hearty cooperation of the medical profession and the support of the whole people of the State.

There is a great lack of knowledge in all matters connected with public health and a negligence in this lack of knowledge and of care the individual shows in protecting himself and his family by failing to provide healthful surroundings for himself and them. Where there is sickness due to filth accumulations, or the spread of epidemic disease due to like causes, it is the duty and it will be the work of the Board of Health to advise for the arrest of the disease by the intelligent destruction of the cause of sickness, There is a great field for the labor of the Board, and there is an honest desire among its members to enter and do the work set apart for them. The idea that these gentlemen are busying themselves only in collecting vital statistics, or having jails or poor houses looked after, has prevailed long enough. There is and can be no need for aid from outside the State to investigate an outbreak of disease and to provide a remedy. The work can be done by these State officials, and a prompt application for help or information will always receive a prompt reply. Just now, in view of the threatened invasion of this country by cholera, there is a duty before the local health officers and the physicians at large, which is plain and simple. The history of cholera since 1832 makes it quite certain that next spring will be the period of greatest danger to the States, especially to those along the seaboard, unless there should be such energetic measures adopted in Europe during the winter months as will stamp out the poison. To prepare their people for such an emergency as the presence of one or more cases of the disease in a community, whether a large or small one, is the work that lies clearly before the members of the profession. And the first step in the direction of prevention is cleanliness-in the streets and on private lots. Herein lies the secret of escape. A clean town, with good drinking water, need not fear the spread of the disease if the people will be guided by the sound advice of the physicians. It is not Utopian to expect or believe that such a desirable state of affairs can be accomplished. It means thrift and life to business, as it means freedom from epidemics and sickness, which, if they come, decrease the tax returns and throw a damper on commercial enterprise that many months will not cure. If the present disposition to panic which the mention of cholera arouses, shall end in a great sanitary revival led by the Board of Health and executed carefully and conscientiously in every home in the State and in every town

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and hamlet, the dread disease which has worked such sad havoc in the cities and villages of Europe will find no resting place here, and the fear of its invasion will become a great beneficence in the lessons the fear of spread ought to, and will, teach our people. If there should be any further danger the Board of Health will no doubt issue bulletins containing such directions for the care of the person and the premises as will be easily understood and carried out.

In this same line there is now a study for the Board, which it seems not untimely to mention. A goodly number of towns in the State have for years had more or less typhoid fever prevalent in them. The annual loss of life and the loss of time to individuals. and therefore to the community in which they live, are serious subjects for the sanitarian. There exists a wide-spread apathy in this direction. The inhabitants of these towns are generally impressed with the belief that the atmosphere in which they live is pure and has in it the necessary qualities to overcome disease. It is a burdensome responsibility to attack the character of the water which people drink. One might as well attempt to inter fere with the precious legends of localities as to say that a doubt of the purity of the drinking water could exist. But the fact remains that the disease is present, that sanitary policing is unheard of, or recklessly neglected, and a revival of proper authority placed in the hands of well-informed and zealous men will, we believe, be of incalculable benefit to these localities.

#### THE EFFICACY OF QUARANTINE.

In a recent address, Mr. Ernest Hart said that "quarantine had been defined as an elaborate system of leakiness; impossible if it were complete, because implying isolation and arrest of intercourse; useless and dangerous if incomplete, because inviting a false reliance and offering a false security. Medical inspection, with the powers of detention, was a more real preventive, and more easily made effective." He asserted that the importation of cholera was inevitable under the existing circumstances. The average of the ineu-

bation period being put at two to five days, it was unavoidable that many should pass through their ports in apparent health, who, after a few days, developed serious or fatal cholera.

The Lancet, in criticising the action of the panic-stricken mob in attempting to prevent the landing of the passengers from quaratined vessels at Fire Island, says: "It is for American experts to advise their Government and countrymen as to what are the measures of prevention against cholera which are best adapted, under their own circumstances of public health, commerce, etc., to cope with the disease. But we are none the less convinced that the more a nation is educated to rely on quarantine, the more it becomes demoralized from a public health point of view. In the eastern hemisphere the quarantining nations are the backward nations, whose populations have suffered most from preventable diseases, including cholera; and both the folly of their practices and the amount of their preventable disease are largely increased by the extent to which quarantine restrictions have been held up to their people as things to be trusted in. . . . In this country we have been trying hard to educate the nation to a higher standardnamely, to understand that quarantine cannot be trusted to keep out cholera, but that purity of the water consumed, of the air breathed, and of the soil can and do prevent the extension of the disease."

As we understand the English system, it is to require the address of all persons coming into the country from infected ports and keep them under surveillance, detaining those who can give no definite address, and to inspect and disinfect the ships. It is claimed that the establishment of an efficient quarantine for Great Britain would be impossible—that the immense travel between that country and the northeastern ports of France, for instance, would put quarantine entirely out of the question as regards those ports. So far the system adopted by our English cousins has proven itself entirely satisfactory to them, and with reason, evidently, as there have occurred only about twenty-four cases of cholera in Great Britain, with only three in London.

The inexcusable action of the mob in preventing the landing of the passengers from the quarantined steamship Normannia, on Fire Island, in New York harbor, has called forth the severe criticism of the medical press of England, and very justly so, for such action, so inhuman and senseless, is worthy of severest censure, but the cause of that burst of hot-headed resistance can hardly be charged to the system of quarantine.

There are some points, however, on which our friends across the water do not seem to be informed. From their criticisms it would be inferred that this country is depending entirely on the quarantine boards to prevent the occurrence of epidemics, and that we are neglecting the equally important step of putting our cities and towns in such condition that the chances of the spread of the disease from cases that do gain an entrance shall be reduced to the minimum. On the contrary, almost every Board of Health and medical journal in the States, to say nothing of the communications from medical men in the countless dailies of the country, have been urging upon the people that their greatest safety is in pure air, pure water and clean soil. The fact that only six cases of cholera have occurred in New York, with upwards of thirty great steamships. with thousands of immigrants from infected ports and many cases of the disease aboard, lying at her gates anxious to discharge their burdens, is proof positive that the quarantine system presents a very formidable barrier to the entrance of epidemics into our country. And that there was no spread of the disease from the six cases that did occur is unquestionable evidence that the health authorities have not been idle in the matter of securing a sanitary condition of the city.

In a country where immigration is permitted to such an enormous extent as it is in the United States, and where the immigrants scatter immediately over such a wide extent of territory, medical surveillance would be as impossible as quarantine would be in England against France. The quarantine system is expensive, enormously so if the stations are maintained so as always to be ready for any emergency; but any expense would be insignificant compared with the results of a wide-spread epidemic

That it was a terrible hardship to the non-infected passengers on the steamers at the New York quarantine to be detained for days on board the infected ships, being subjected to the risk of contracting the disease, cannot be questioned, and that there is blame somewhere is equally true; but that unfortunate condition cannot justly be considered as an argument against the system, but rather as a serious charge against somebody for not providing in advance one of the very foremost requisites for a well equipped station. It is to be said, however, that the long freedom from danger begot a false security, and when Dr. Jenkins came face to face with the difficulties that the unusual rush of immigrants presented, his cool determination and masterly management must commend him as the foremost quarantine officer in the country.

Our first duty would seem to be to keep out from our midst, as much as possible, all diseases that might give rise to an epidemic, but also, in view of the fact that it is, in the present state of our knowledge, impossible to prevent some cases finding a way in, to have our cities in such sanitary condition that the chances of the spread of the disease will be so reduced as to enable the health authorities to control them. While the health boards might be able to satisfactorily manage a dozen cases, if fifty cases were scattered about, it might prove such a tax on the board that some necessary precautions would be neglected.

THE SECOND ANNUAL REPORT OF THE MIDWIFERY DISPEN-SARY, New York City, exhibits a remarkable advance in the progress of the institution during the year. The number of women treated has increased from 199 in 1890 to 955 in 1891. The average number of days of treatment was 8.09 at an average cost of \$6.42 per patient. In nativity nearly 60 per cent. were Russian. Of the 955, 942 were married; the youngest was 16 years old, and the eldest 47; 220 were primipare, one was XV-para, and as many as 313 were V-para or more As regards presentations, the vertex presented once in 1.07 cases, breech once in 20.10, shoulder once in 63.66, and face once in 382.00. Of the 712 vertex presentations the child was still-born in 19 cases; of 24 breech presentations, 14 were still-born; of 12 shoulder presentations, 6 were still-born; of 2 face presentations, 1 was still-born. Of 874 recorded cases, 462 were males, 412 females. Placenta presentations occurred once in 127.43 cases; eclampsia four times, or once in 191 cases, urine being examined in only one case, in which it was normal on the day of delivery. Albumin was found in 14 cases, but these exhibited no further symptoms of eclampsia. Twins occurred once in 50.26 cases. Forceps used low in 8 cases, high in 10 cases, to aftercoming head in 2 cases. External version performed once; internal podalic 18 times. There were 10 fatal cases—one in 95.5. Causes of death-septicæmia, 5; convulsions, 1; pneumonia, 1; shoulder presentations, one being also placenta previa, 2; hemorrhage from cervix in after-coming head, 1.

#### REVIEWS AND BOOK NOTICES.

GEOGRAPHICAL PATHOLOGY: An Inquiry into the Geographical Distribution of Infective and Climatic Diseases. By Andrew Davidson, M.D., F.R.C.P., Ed. In two Royal Octavo volumes. Cloth. New York: D. Appleton & Co., 1892.

This work, of a thousand pages, is divided into two volumes, the pagination, however, continuing uninterruptedly through the two, the second volume containing the index for both.

Under the term infective diseases the author includes miasmatic diseases, such as malaria; miasmatic-contagious maladies, such as cholera; and the contagious diseases proper, such as scarlet fever. Climatic diseases include, amongst others, croup, bronchitis, pneumonia and rheumatism, which are either owing to, or are materially influenced by, meteorological conditions.

The author follows the natural division of the world into continents, these into existing kingdoms and states, while the states are grouped into divisions from north to south; the first volume being devoted to Europe, Northern and Western Asia, India, Ceylon and Burmah, and the second to Southwestern Asia, Indian Archipelago, Australia and Polynesia, Africa and America. He has drawn upon the official returns of the statistical departments for his information where these have been attainable.

The geography, climatology, vital statistics and pathology of each country is given briefly, and the different diseases are treated of in detail under the pathology of the countries in which each occupies a conspicuous place. The chapter devoted to the United States occupies about 75 pages. It is rather a pity that the census returns for 1890 were not accessible in treating of the statistics, both vital and meteorological, in the United States, as they would give more satisfactory statements than those for the year 1880, which the author has taken as his authority. Vital statistics in the States are far from satisfactory now, and they must have been still more so twelve years since, especially in the Southern States. This chapter is rich in tables and charts illustrating the influence of temperature, rain-fall and altitude on the various diseases; also the influence of the different diseases on the three classes of people in the United States—whites, negroes and Indians. Malarial fever, as

influenced by rain-fall, inundations, marshes, disturbance of the soil, etc., is treated of in various sections, but we fail to notice any reference to drinking water in its influence on this malady. It cannot be doubted since Laveran's discovery of a specific germ, and with the experience of physicians practicing in malarious sections, that drinking water occupies an important place as a means of entrance into the body by this common disease.

The work is very interesting and instructive and should be accessible to all who desire to familiarize themselves with the influence of climate and country on diseases, and to those whose business it is to study the best methods of prevention.

TREATISE ON DISEASES OF WOMEN: For Use of Students and Practitioners. By Alexander J. C. Skene, M.D. Second edition, revised and enlarged. Illustrated by 207 engravings and 9 chromo-lithographs. New York: D. Appleton & Co.

This work hardly needs a notice beyond the announcement that its author has revised and added to the previous editions. Dr. Skene has long been recognized as a conservative as well as an able teacher, and this book is possessed of the value of being the compendium chiefly of his own work and experience.

Those of our readers who were so fortunate as to carefully study his opinions in the first editions will find that he has added only such matter to the latest edition as has been proven and accepted as facts.

The illustrations are as numerous as in the other editions, and we regret that the obscurities that marred the first books have not been entirely removed. The text is clear enough, if one does not attempt to verify it by the illustrations, in some instances. This is a minor fault, and the book can stand on its great merits, having but few equals.

TREATISE ON GYNÆCOLOGY, MEDICAL AND SURGICAL. By S. POZZI, M.D., Professeur Agrégé à là Faculte de Médicine, Paris, etc. Translated from the French edition under supervision of, and with additions by, Brooks H. Wells, M.D. Two volumes. Illustrated by 479 wood engravings and 15 full page plates in color. New York: William Wood & Co.

The work of Dr. Pozzi has received the cordial endorsement of the leading men in the specialty to which it is devoted. It bears the stamp of a close student's work and exhibits the wide range of reading of the author. There is no narrowness in his ideas, and, while he is fully equipped himself to express opinions, justified by personal experience, he has given space to the opinions of all the men whose writings on gynæcology have become noted or accepted as standards. It covers the field with more fulness than any book of its kind that has been presented to the profession, and its text and very numerous illustrations, many of which are entirely new to American readers, render the work one of the most valuable additions to the long list of books now offered the student of the diseases of women. Its value is enhanced by the editorship of Dr. Wells, and his dictum as a critic and as an expositor of the latest accepted doctrines in gynæcology in the United States, will materially aid the reader in his search for authentic statements and safe guides to practice.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By JOHN V. SHOEMAKER, A.M., M.D. Second edition, revised; and enlarged, with chromogravure plates and other illustrations. New York: D. Applelon & Co., 1892.

The first edition of this valuable work made its appearance only in 1890, and was a welcome addition to the treatises on Dermatology which had already been presented to the profession. In the second edition the author has incorporated the various new points relative to etiology, pathology and treatment which have been advanced during the past two years, the number of pages having been increased from 633 to 878, nearly 50 per cent., the section on Syphilis alone being increased by about twenty pages, mostly devoted to treatment. The administration of mercury by hypodermatic injection has received special attention, reference being made to the various preparations recommended by recent experimenters. The author, however, after using all of these, prefers the solution of the corrosive chloride in distilled water, as being the most readily prepared, and just as effective as any that have been suggested. He has employed this preparation in 554 cases, making 5,295 injections, and in no instance have abscesses resulted. He employs the remedy in the strength of gr. jv- 3 i, beginning with a daily injection of five minims and in reasing minim by minim every second or third day until the constitutional effects of the drug are

obtained. The injection should be into the deep muscular or subcutaneous tissues, where absorption will take place rapidly.

The section devoted to Leprosy has been enlarged and the conflicting views as to its etiology and contagiousness have been patiently considered, the balance of testimony being greatly in favor of its contagious nature. Under the head of heredity, as a factor in the transmission of the disease, the author says: "When the disease is confined to the father, and more especially if it has reached an advanced stage, it seems credible that the seminal fluid or the spermatozoa should impress a morbid inheritance upon the embryo corresponding to what takes place when the infant inherits syphylis from the father"; but, in speaking of congenital syphilis, he says: "But the weight of authority is in favor of the opinion that infection can only occur through the medium of the maternal circulation."

The work is liberally illustrated with chromogravures and woodcuts, the colored plates of the first edition having been replaced by entirely new ones, more numerous and not of a less degree of excellence. The "Formulary" for internal and local treatment has been enlarged to nearly twice the size in the first edition, and is very conveniently arranged for reference.

AN AMERICAN TEXT-BOOK OF SURGERY: For Practitioners and Students. Edited by WILLIAM W. KEEN, M.D., LL.D., and J. WILLIAM WHITE, M.D., Ph.D. Profusely illustrated. Philadelphia: W. B. Saunders. Sold by subscription only. Cloth, \$7.00; Sheep, \$8.00; half Russia, \$9.00, net.

The accomplished editors of this book have called to their aid some of the most distinguished surgeons in the United States, as Drs. Charles H. Burnett, Nancred, Conner, Roswell Park, Senn, J. Collins Warren, and others—and, including themselves, have produced an encyclopedic text-book—each author devoting himself to the subject, but by mutual consent having his views criticized and amended by the rest of the corps before the book went to press. We note that the work begins with an exhaustive and yet concise chapter on Surgical Bacteriology, which is a new addition to a surgical work, but exceedingly useful in the present phase of aseptic and antiseptic surgery. The illustrations are made from studies of the author of the article and amply cover the field for the student and practitioner seeking knowledge in this line. Then

follow full chapters on Inflammation, Process of Repair, Traumatic Fevers, Suppuration and Abscess, and the subjects relegated to the head of general surgery.

The student will find, in Book Third, the chapters on Diseases and Injuries of the Head, Surgery of the Digestive Tract and Diseases and Injuries of the Abdomen of unusual interest and worth. The experience of Dr. Keen would naturally lead one to expect the former of these to be exhaustive, and no disappointment awaits the eager reader. We notice in the article on hernia that not much encouragement is given to attempts to cure this deformity by the radical operation, although all the methods are set forth in detail.

The chapters on the Surgery of the Male and Female Genito-Urinary Organs are quite as complete as could be expected, and better than is the rule in works on general surgery.

The other subjects are exhaustively treated, and there is throughout the book a completeness, coupled with conciseness, that makes the book a valuable edition. The painstaking criticism to which each article has already been subjected, faithfully promises the excellent work that is offered the profession, and the illustrations are both good and instructive. We note the number of original wood-cuts, and the plates are phototype copies of cases and morbid specimens taken from the practice of the authors of the different chapters. In many respects the work is a new departure in this direction, and will be welcomed by students of surgery and no doubt become a standard tex-book.

Physician's Leisure Libbary.—Geo. S. Davis, Publisher, Detroit, Mich. Issued Monthly. Price \$2.50 a Year or 25 cents for single numbers.

Cerebral Meningitis; Its History, Diagnosis, Prognosis and Treatment. By Martin W. Barr, M.D.

Uses of Water in Modern Medicine. By Simon Baruch, M.D. In two volumes.

Contributions of Physicians to English and American Literature. By Robert C. Kenner, A.M., M.D.

STUDENT'S QUIZ SERIES. LEA BROTHERS & Co., Philadelphia.

Genito-Urinary and Venereal Diseases. A Manual for Students and Practitioners. By Charles H. Chetwood, M.D. Price \$1.00. Cloth. Pages 178. Illustrated.

Obstetrics. A Manual for Students and Practitioners. By Chas. W. Hayt, M.D. Price \$1.00. Cloth. Pages 190. Illustrated.

#### CURRENT LITERATURE

#### CONCERNING THE ETIOLOGY OF MALARIA.

Dr. Ludwig Kamen (Beitræge zur pathologischen Anatomie und Pathologie, No. 3, 1892), observed the following changes in Laveran's hæmatozoon during malarial chills. In a case of the quartan type, the following observations were made upon the blood:

First day. A few small endoglobular parasites having a few peripheral pigment granules were seen in the red corpuscles.

Second day. Endoglobular plasmodia occupying the major part of the corpuscles. Besides these there are cells similar to those of the first day, but more numerous.

Third day. Completely developed organisms occupying the entire blood cell except a narrow peripheral zone. The pigment granules are scattered uniformly throughout the protoplasm.

During the chill. The pigment is collected centrally in a round mass, or at times in the form of a minute radial band; marked differentiation of protoplasm. In addition individuals not yet fully developed.

During the fever. Division of the parent cell into daughter cells and mature daughter cells, with disintegration of the remaining portion of the older cells.

During the sweat. Pigment discs, besides certain misshapen protoplasmic masses, which apparently are dead plasmodia.

The new generation does not precede the fever, but the two occur simultaneously. At the end of the vegetative stage the fever appears. The time of apyrexia corresponds to the vegetative period, and that of pyrexia to the proliferation period. Every sporulation means another chill. The time intervening depends upon the time required to pass from one phase to another.

In discussing the probability of different organisms giving rise to the various forms of malaria, this division is made:

Hæmamamæba malariæ—quartan, hæmamamæba vivax—tertian, hæmamamæba præcox—quotidian and the pernicious and continued fevers—hæmamamæba immaculata, colorless variety, similar to the foregoing in its pathology, and lastly, the Laverania malariæ, as the cause of chronic malaria.—North American Practitioner.

#### SANITARY PROGRESS IN EGYPT.

In the Valley of the Nile to-day there are three Egypts. There are the sub-stratum dominions of the Egypt Exploration Fund-an ancient land of sphinx, pyramid, mummy and scarab, ruled over in this century by a dynasty of archæologists. Superimposed is the Egypt of Mohammed, with its tapering minarets, swelling domes and dusky bazaars, and all the torpifying influences focalized at Cairo in the teachings of the great university mosque of El-Azhar, with its 19,000 students swaving and muttering over the Koran. Above this, in turn, is the Egypt of the English occupation. The English soldier kicks football in the yard of the barracks where Arabi hatched his rebellion, and the English tourist plays polo under the shadow of the great pyramid, to the regimental music of the Royal Irish Rifles. England is known to be the greatest of colonizers and the most successful governor of Orientals, but the reforms she has wrought in Egypt during the past nine years are simply astounding.

Probably the most serious obstacles have been encountered by the English sanitary officers. They have had to combat the prejudices of an ignorant, teeming population, which was ready to attribute every epidemic to the decrees of fate. The mosques, with their unsanitary latrines, and the cemeteries are all fruitful beds of disease, but as they are connected so intimately with the religious life of the people, it is difficult to remedy the existing evils without arousing fanatical antagonism. Something, however, has been accomplished, and in Cairo old sewers that were nothing more than elongated cesspools, whose course could be traced by the cases of typhoid fever occurring in the adjacent houses, have been filled up, and in 1890 30,000 tons of sewage were removed from the city. Under the old regime, the hospitals were unclean pens to which a native would not go unless taken forcibly by the police. Now these establishments are clean, properly equipped, and have their dietary. Patients are no longer brought in chains, and leave when they like. At Kasr el-Aini, in Cairo, considerably over 100,000 cases were treated during 1890, and most of the provincial hospitals show proportionate returns. Moreover, dispensaries have been opened in thirteen towns; registration of births and deaths is required; vaccination is obligatory; a veterinary department has

been established to suppress cattle diseases; barbers and midwives, the former being practitioners of minor surgery, are required to submit to an examination to determine their proficiency; and, as a matter of special importance, there has been organized a system of flying hospitals for stamping out epidemics of small-pox, typhoid and typhus fever. It is true that all of these sanitary reforms are not yet perfect in their practical workings.—*Ecchange*.

#### THE HÆMATEMESIS OF ANÆMIC YOUNG WOMEN.

While the statistics of gastric ulcer obtained from post-mortem records show the disease to be not very unequally divided between the two sexes, and while duodenal ulcer, which for practical purposes it is useless to divide from gastric ulcer, is more common in the male, hæmatemesis is far more frequent in young females, especially if we exclude those cases which are due to organic heart disease, to malignant disease, or to cirrhosis of the liver.

While far from denying the common occurrence of gas ulcer in young women, and the favoring influences of anæmia, I am convinced that in numerous instances the hæmorrhage arises from ruptured capillaries or small venules, and that no ulcer worthy of the name exists. The rupture of these small vessels is favored by anæmia in several ways. Partly by malnutrition leading to fatty degeneration of the vessel walls, partly by general rise of the vascular tension, which has now been shown beyond dispute to be common in some forms of anæmia, and last, but not least, by some backward pressure in the gastric venous circulation from the dilatation of the right side of the heart, inevitable in all severe cases of anæmia. In my experience it is the anæmia, the constipation, and the feeble heart which urgently require attention; and the successsul treatment of these removes the malnutration of the vessels, the high vascular tension and the venous remora, which we have laid down as the three most important causes of the hæmatemesis of young women.

It is, I think, easily possible to restrict the dietary too much in cases of hæmatemesis. But how are we to distinguish the cases where the blood is poured out from the surface of an ulcer from

those where no visible ulcer exists, though of course there must be a breach of continuity for hamorrhage to arise? This is not in all cases possible. But the best guide to the dietetic treatment is the state of irritability of the stomach as indicated by pain and vomiting. Neither of these symptoms is a necessary consequence of gastric ulcer. They indicate either an inflamed ulcer or surrounding catarrh. If these two conditions are absent, a case of gastric ulcer may be treated safely and wisely on the same lines as one of hæmatemesis arising apart from ulcer. Hyper-acidity, which so greatly favors the production or continuance of ulceration in the stomach, is generally indicated by pain coming on from half an hour to an hour or longer after food. It can be readily determined by testing the contents of the stomach removed by the stomach tube.

If hyperacidity is properly met by the administration of alkalies, a moderate amount of light food in a fine state of division may safely be given, even in gastric ulcer. Rapid healing cannot be looked for in the absence of abundant nutrition.

Ulcers of the stomach artificially produced in dogs cannot be prevented from healing so long as the dogs remain in good health. Where hæmatemesis is due to anæmia, and the anæmic dilatation of the right side of the heart leading to over-filling and congestion of the veins of the stomach, it is not necessary to give digitalis so long as the patient is kept strictly in bed; but so soon as the patient is allowed to get up, unless the tricuspid murmur and the dilatation of the right ventricle have disappeared during the prolonged period of rest and the treatment by iron and aperients, digitalis should certainly be added, and will prove of great service.—Henry Handford, M.D., M.R.C.P., London, in British Medical Journal.

#### CREASOTE IN CONSUMPTIVES.

D. Burlureaux (Mouvem. Ther.) gives up all phthisical patients that bear creasote poorly. In general, he considers the fact of perceiving the taste of creasote, particularly after the administration of small doses, a sign of intolerance, but one of secondary value; the black coloration of the urine, if it occurs accidentally or after the use of large doses, does not indicate intolerance, it is held; but

if a small dose of creasote produces blackish or black urine, and this quite frequently, the physician ought to be extremely circumspect. The vertigo, the drunkenness, even the torpor, the extreme prostration, the impossibility of associating two ideas, do not, in the author's opinion, indicate intolerance; these symptoms are rare. and of short duration. Sweating, after the injection of creasote, does not indicate intolerance; but this symptom may accompany a febrile movement, and then two phenomena may present themselves. to wit: (1) the fever is perceptible only to the thermometer; there is no change in the general condition. It is advised, in such cases, to continue the treatment, and to diminish the doses, if necessary; tolerance will be established. Or (2) there are malaise, violent chills, celphalalgia, and a sensation of cold; the extremities are icy, respiration is slowed and the pulse is small-recalling the algid form of the pernicious fevers. The crisis lasts scarcely threequarters of an hour, and is often followed by a comfortable condition. In such cases it is recommended to discontinue the creasote, or rather to considerably diminish the doses, and to administer the medicament only very tentatively .- Merck's Bulletin.

### CUTANEOUS ABSORPTION OF MEDICINES MIXED WITH FATTY SUBSTANCES

Guinard (Lyons Med., 1891, Nos. 36-38) has made experiments on man and animals for the purpose of solving the much-vexed question of the absorption of medicaments by the skin. He finds that the unbroken skin prevents the passage of lanolin, vaseline, and lard and medicaments mixed with them, strychnine, iodine, morphia, etc. When iodine is found in the urine after cutaneous application, it has passed into the body by the respiratory organs. Exceptionally, when the medicaments are applied with the aid of steam or gas, a little may pass in by the sweat and sebaceous (?) glands, but only slowly, and in quantities so small that they cannot be measured. The passage is quickened by energetic rubbing of the skin, which widens the gland passages and empties them of their accumulated contents. Lanolin serves as little as fat and vaseline to render possible the absorption of medicaments through the skin. Absorption from wounds is differently effected by the three ointments. Vaseline renders it the most speedy. It is slower when lanolin and fats are used, and slowest when fat alone is employed. Vaseline is the substance which most promotes the absorption of a medicament into the circulation .- Centralb. für klin. Med.

#### CURRENT NOTES.

THE TWENTIETH ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION will be held in the City of Mexico, November 29th, 30th and December 1st and 2d, 1892. Dr. Irving A. Watson announces that a one-fare rate for the round trip has been assured by the railroads embraced in the Southern Passenger Association and in the Western Association. Tickets will be sold from November 20th to November 26th, inclusive, returning not later than December 31st, with a transit limit of fifteen days each way, thus giving ample opportunity to stop off at interesting points.

THE LOCAL COMMITTEE OF THE WORLD'S CONGRESS AUXILIARY OF THE DIVISION OF MEDICO-CLIMATOLOGY have issued an address stating the objects of this department, and setting forth the advantages of having at the Congress representatives from all parts of the world. Twenty three topics for discussion have been suggested. The Chairman of the Committee is Dr. T. C. Duncan, and Dr. L. B. Hayman is the Secretary. All communications asking for information in regard to the Congress should be addressed to one of them at the "World's Congress Headquarters, Chicago, Illinois."

W. E. St. Lawrence Finney, MB, in the British Medical Journal, states that he gets the good effects of morphia without the unpleasant sequelæ by using a hydrobromate of morphia, which he prepares by first rendering distinctly alkaline the liquor morph. hydrochlor. with a solution of ammonia, allowing time for complete precipitation, which takes place slowly. The precipitate being caught on filter paper is redissolved in dilute hydrobromic acid and water added to bring the volume to that of the liq. morph. hydrochlor. He got better results with the hydrobromate when prepared in this way than when morphine was directly dissolved in hydrobromic acid.

DIABETES FOLLOWING EXTIRPATION OF THE PANCREAS.—Minkowski has found that not only in dogs, but also in cats and pigs, a severe form of diabetes mellitus follows the entire extirpation of the pancreas. In birds this does not occur. In order further to show the special function of the pancreas, the author, after re-

moving the pancreas from the abdominal cavity, has transplanted pieces of it under the skin of the abdomen. By so doing the appearance of the diabetes is checked even after the entire removal of the pancreas from the abdomen, but if the transplanted pieces are subsequently removed, diabetes soon appears.—Boston Medical and Surgical Journal.

It is a noteworthy fact that not a single case of small-pcx occurred during the year 1890 in the British Army. If this be not evidence of the protection afforded by re-vaccination against a malady once so common—and still disastrously fatal in armies where this precaution is not vigorously enforced—then logic and reason are mere accomplishments.—Medical Review.

DEATH OF THE INVENTOR OF THE HYPODERMIC SYRINGE.—The ordinary hypodermic syringe is known in France as the seringue du Pravaz, the instrument having been invented by Dr. Pravaz, of Lyons. The death of this gentleman is announced in this week's journals. He was the director of an orthopedic establishment in the silk capital, and was well known as a medicin orthopediste.—Southern Practitioner, September, 1892.

Dr. Joseph Price, of Philadelphia, has, in the June number of the American Gynecological Journal, a most interesting article-The Porro Operation vs. Casarian Section. He says: "It avoids many of the resultant dangers of Cæsarian section, not the least of these being the succulent uterus, with its incision. In the Porro operation the uterus is strangulated at once, thus precluding the danger of hemorrhage from uterine incision, and the intra-peritoneal treatment of the cut uterus, and also the great facility with which the operation may be performed are points in its favor. The advantages lie strongly in favor of the Porro from the further fact that there is a total absence of wounds in the peritoneal cavity, no involvement of important viscera; therefore less hemorrhage and less shock. In this operation there are other imminent dangers that the Porro avoids-adhesions with the intestines, which give rise to intestinal obstruction, adhesions between the uterus and abdominal incision and post-partum hemorrhage. There is always great uncertainty in the healing of the uterine incision .- Times and Register.

The Fourth Annual Meeting of the Tri-State Medical Society of Georgia, Alabama and Tennessee will be held in the city of Chattanooga, Tenn, on the 25th, 26th and 27th of October, 1892. Any graduates of regular medical schools in the United States are invited to join the Society, there being no membership fee and the annual dues being \$2.00. Thirty-one papers on various subjects are promised.

BLACK EYE.—There is nothing to compare with a tincture or a strong infusion of capsicum annuum, mixed with an equal bulk of mucilage or gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's-hair pencil, and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, the treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic, sore or stiff neck.—Medical Times.

Turpentine Emulsion.—Harry Kahn, in the Apothecary, says: It is to be regretted that a work which has the force of authority should contain a formula which, as admitted, will give an inferior preparation; this is so with the general formula for Volatile Oil Emulsions as contained in the National Formulary. This formula directs that 120 grains of Acacia be used for each half fluid ounce of Volatile Oil. This quantity of Acacia is entirely insufficient. The mixture separates after standing a very short time. A good emulsion of turpentine, or of any other Volatile Oil, may be made by the following formula:

Oil	$\frac{1}{2}$	fluid ounce.
Tragacanth	30	grains.
Syrup	1	fluid ounce.
Water enough to make	4	fluid ounces.

To the oil of turpentine contained in a dry bottle add the Tragacanth and shake; add 1 fluid ounce of water, agitate vigorously. Then add the syrup in portions, shaking after each addition, and finally enough water, in portions, shaking after each addition, to make 4 fluid ounces.

Dr. John James Reese died in Philadelphia on the 4th of September, 1892. Dr. Reese was well known as the editor of the seventh edition of Taylor's "Medical Jurisprudence," and the author of a "Manual of Toxicology." He was in his 75th year,

Sodium Salicylate in Sprains.—Without desiring to lay claim to priority relative to the use of sodium salicylate in sprains, Dr. Labbée relates a few facts (Sem. Med.) pertaining to this subject. In a case of sprain of the tibio-tarsal articulation, he observed, after the administration of 4 grammes [1 dram] of sodium salicylate in four hours, that the pain completely disappeared, so that as early as the next morning massage could be resorted to without occasioning the slightest pain, and after four days the patient was cured. Since then he has prescribed the same treatment in a number of other cases of sprain, and has always obtained, it is claimed, equally satisfactory results as in the above case.—Merck's Bulletin.

#### READING NOTICES.

ALEX. M. BLIGH, M.R.C.S., Eng., etc., Liverpool, England, says: "S. H. Kennedy's Extract of Pinus Canadensis is an invaluable remedy for most diseases of the mucous surfaces, especially of the throat, and, indeed, the whole intestinal mucous membrane. In throat affections, relaxed uvula, chronic laryngitis, assuming the form of aphonia clericorium, to which teachers, singers and clergymen are subject, I have found its administration, both internally and as a gargle. most useful. I have considerable experience of its efficacy in clergymen, and find it invaluable in neurosis of larynx.

I DESIRE herewith to acknowledge the efficacy of Peacock's Bromides, and to say that I have recommended and prescribed it in nervous prostration, intestinal indigestion and dyspepsia, with admirable results, and have yet to be disappointed in this preparation when indicated as a tonic and nerve sedative.

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Sulphur Bricks are effectual in the fumigation and disinfecting of rooms after infectious diseases.

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As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested,

when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisible that the Syrup should be orlered in the original bottles; the distinguishing marks which the bottles and the wrappers surrounding them) bear, can then be examined, and he genuineness—or otherwise—of the contents thereby proved.

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- 2. Increased Waste implies increased Alimentation.

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## NORTH CAROLINA MEDICAL JOURNAL.

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GEO. GILLETT THOMAS, M. D.,

JACKSON & BELL, PUBLISHING, A.D.

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## NORTH CAROLINA MEDICAL JOURNAL.

R. D. JEWETT, M.D., Editor.

Number 5. Wilmington, November, 1892. Vol 30.

#### ORIGINAL COMMUNICATIONS.

#### TREATMENT OF PNEUMONIA.

By A. B PIERCE, M.D., Weldon, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

In giving to the profession a synopsis of my treatment of pneumonia, I do not claim anything new as to the remedies employed, but I claim that their combinations and their peculiar and specific action are the essential points in the treatment of the disease. Neither do I intend to enter into any disquisition on the pathology or causes of the disease; but I shall take it for granted that every practitioner of medicine knows a case of pneumonia, when he sees it, unless occasionally it is masked by other symptoms, overriding and concealing the true characteristics of the disease.

In early life, in the commencement of my practice, I treated

many cases I met with with the lancet, tartar emetic and mercury, and had good success at that time, with this exception, the cases were more protracted, and convalescence was more tedious.

I have bled some cases as much as four times for four consecutive days, and every time the remedy seemed to give relief, and the case ended in final recovery, but as I said before, the recovery was slow. On one occasion, I recollect, after having bled the case four times, I left some Hive syrup, to be taken 30 drops at a dose, as an expectorant. The nurse, through mistake, gave a tablespoonful of the medicine at a dose, which produced hypercatharsis, but to my surprise, on my return to the patient, the symptoms were ameliorated, and the case went on to a favorable termination. So that, as some have been taught, hypercatharsis does not always produce unfavorable results in the treatment of pneumonia, and especially pleuropneumonia.

I recollect two other cases in my practice where I left my patients during the night, and on my return next morning I found the patients, during the night, had twenty-five evacuations from the effects of repeated doses of calomel, and, to my surprise, the temperature had decreased from 104° the evening before to normal, and the patient was convalescing.

Coming down the line of practice for the last twenty years, either from a change in the sthenic character of the disease, or some other unknown cause, I have pursued a different treatment of the disease.

The combination of the remedies and the specific action of the drug is what I contend for as most essential in the treatment of the disease.

When called to the case early in the disease I direct my forces to break up the congestion, or engorgement of the lung, before it gets a strong hold upon the tissues, and for this purpose I commence immediately on the following prescription:

Ŗ.—Calomel	 grs ij.
Dover's powder	
Sulphate quiniæ	 grs. x.

To be given at a dose, and repeated every two or three hours.

If this does not break up the engorgement about the lungs by the third or fourth day, and produce a reduction of the temperature and lessen the frequency of the pulse, I continue the same remedies in smaller doses, say the following formula:

B.	_	-Calomel					 	 		 		grs.	SS.	
		Dover's powder					 	 				grs.	iij.	
		Sulphate quiniæ					 	 				grs.	v.	
,			,			-					٠.			

To be given at a dose, and repeated every two or three hours.

If this treatment is pursued for several days in most cases the disease will generally end in resolution about the seventh or ninth day, or twelfth at the farthest; and if you can succeed in producing the specific effects of the mercury at any time the symptoms will immediately cease, and the case will go on to convalescence. I have seen the specific effects of the mercury to take place when the temperature was 104° or 105°, and the pulse 120, and on the accession of the ptyalism the pulse and temperature would immediately go down to normal.

In a practice of nearly fifty years, I have seen but one case that did not yield to ptyalism, and that was a very old person.

My object then is, if I cannot break up the engorgement of the lungs in the first stage of the inflammation, to try to produce the specific effects of mercury. And I am of the opinion that the combination of quinine and Dover's powder, or some other preparation containing the properties of opium, has a tendency to hasten the peculiar effects of the mercury.

In corroboration of my views concerning the specific action of mercury and its effects, Dr. C. I. Gee, who has charge of two of the Penitentiary farms on the Roanoke river, informs me that in every instance where he has been enabled to produce ptyalism the disease has instanly yielded. In the winters of 1889-'90-'91-'92 he had about 25 cases of pneumonia, in which he succeeded in producing the specific effects of the mercury, and in every case the symptoms yielded on the accession of the ptyalism. In pneumonia of a high grade of temperature it is very hard to produce the specific effects of the mercury.

Perhaps at some future day this difficulty may be overcome, and some means may be instituted to produce the specific effects of the mercury, when desired, which I should consider a great desideratum in the treatment of pneumonia.

OFFICIAL REPORT OF THE MICRO-CHEMICAL EXAMINATION OF SPOTS AND STAINS ON KNIFE-HANDLE AND BLADE AND ON POCKET-BOOK, AND BANK BILLS TAKEN FROM THE PERSON OF AN ITALIAN, JOSEPH POLITO, ARRESTED IN NEW ORLEANS, CHARGED WITH THE MURDER OF HIS BROTHER IN LAW, SIMEONI CASCIO.

By Joseph Jones, M.D., LL.D.

(Professor of Chemistry and Clinical Medicine Tulane University of Louisiana, New Orleans.)

On the 1st of October, 1892, about 12 m., Mr S. H. St Martin, Sheriff of the Parish of Ascension, Louisiana, appeared at my office, 36 University Place, and presented the following statement and the following document, issued by the Honorable Walter Guion, Judge of the 20th District

#### Circumstances of the Murder.

On the 22d of September, the body of an Italian, Simeoni Cascio, was found half buried in a ditch, and presented, upon examination, a penetrating wound of the skull on the right side, which penetrated into the brain, and also an incised wound of the throat, extending from ear to ear: the right arm was cut to the bone. The locality was a lonely old field, near the woods.

The victim was last seen going in the direction where he was found dead, in company with Joseph Polito. When last seen Caseio was walking in front of Polito, the former being a small manand the latter a tall, powerful man.

Cascio had been several years in the Southern States, and was industrious and thrifty. Polito had married Cascio's sister in Italy, and had left his wife in that country, and reached Louisiana in January, 1892, and searched for his brother-in-law in Texas, and found him in about seven months, and returned with him to Ascension Parish about two days before the crime was committed. Polito disappeared the day that the crime was committed, about 8-11 a.m. Came to Donaldsonville, where he changed his clothes, and took the clothes with him, then came to New Orleans and changed his

clothes here; stopped at the corner of 6th and Tchoupitoulas streets, with a small Italian man, who had lost a hand.

Polito was arrested by Sheriff St. Martin and officers Pat Murray and Thomas Bell. Polito fled as soon as he saw the officers, and threw away a watch and chain, which was recovered and found to be the property of the dead man. The pocket-book contained \$318, and he had a belt containing \$220 in gold; he also had a valise containing the dead man's clothes:

The State of Louisiana,

vs.

Joseph Polito.

The State of Louisiana,

20th Judicial District,

Parish of Ascension.

It is hereby ordered that the Sheriff of the Parish of Ascension be, and he is hereby, directed to take into his keeping a certain pocket-book and pocket-knife and certain paper money found in the possession of Joseph Polito, who is suspected of having killed and murdered one Simeoni Cascio, as well as any other property found in his possession and upon which supposed blood-stains may be found, and to convey and deliver the same into the care of Dr. Joseph Jones, or any other reliable expert, for the purpose of having said articles examined in order to determine by proper tests whether the same have upon them stains or marks of human blood; the said Sheriff being hereby directed to have said analysis made in his presence, and, when completed, to deliver all of said articles so examined into the keeping and custody of the Clerk of the 20th Judicial District Court for the Parish of Ascension. It is hereby further ordered, that said Joseph Polito be notified by a service of a copy of this order upon him.

Done and signed at the Parish of Ascension, this 28th day of September, 1892.

(Signed)

Walter Guion, Judge 20th District.

A true copy:

Parish of Ascension, Sept. 30, 1892.

J. A. LANDRY, Clerk.

36 University Place, October 1st, 1892.

Received from Samuel H. St. Martin (Sheriff of the Parish of Ascension, Louisiana) the following articles for medico-legal examination:

- One ten dollar bill, No. E735823E, Sept. 22, 1891, Purcell National Bank, Indian Territory. Series of 1882.
   Two small spots supposed to be blood.
- (2) Two five dollar bills:

No. A1861534\*. U. S. Treasury Note. Legal Tender. Series of 1890. Several spots supposed to be blood.

No. A2421193\*. U. S. Treasury Note. Legal Tender. Series of 1890. Several spots on front and back supposed to be blood.

(3) One knife or dagger:

Blade about 4 inches, handle about 5 inches. Blood supposed to stain parts of handle.

- (4) Red leather pocket-book: Supposed to contain blood on edge and other places. This property taken from Joseph Polito 21st Sept., 1892.
- (5) One hat and one collar lying near Simeoni Cascio. JOSEPH JONES, M.D.

Witness:

Hamilton Polk Jones, S. H. St. Martin.

> 36 University Place, New Orleans, La., October 3d, 1892.

Received from Dr. Joseph Jones the articles mentioned in the preceding statement, namely:

- 1st. Knife.
- 2d. Pocket-book.
- 3d. Three bank bills.

  Two \$5 and one \$10 = \$20.
- 4th. One collar.
- 5th. Fragments of hat.

S. H. St. Martin, Sheriff.

- General Results of the Micro-Chemical Examination of the Spots and Stains on the Articles Enumerated in the Preceding Statement.
  - (1st.) Knife-blade and handle:

Length of entire handle and blade	9½ i	nches.
Length of handle		"
Circumference of largest part of handle		46
Circumference of smallest part of handle	2	"
Length of blade	4를	"
Greatest breadth of blade		"
Greatest thickness of blade at junction with		
handle	18	"

The blade tapers to a sharp acute point, both the back and cutting edge tapering gradually to an acute point, forming a spearshaped weapon. On the back of the knife there are seven deep notches about 1-16th of an inch wide and about 1-14th of an inch deep. The last notch is deeper, about 1th wide and about 1-1:th of an inch deep. These notches run diagonally across the back of the blade, and are about th of an inch in length, and altogether occupying one inch of the back of the blade where it joins the handle. The blade works upon a strong pivot, and when closed enters a deep cleft in the brass-bound black ebony handle. The edge of the knife-blade, for about 4 inches, is thus sheathed and protected by the cleft in the handle. The body of the handle is composed of hard black ebony wood, strongly bound by three brass bands. The lowest band terminates in a figure resembling the head of a dog, the open mouth of which receives the point of the knife when closed. The largest brass band is ornamented with four marks in the form of crosses, and seven semi circular lines with small marks resembling rude crowns.

The ebony handle is ribbed and ornamented so as to secure a firm hold. The rivets are strong and the entire weapon of a powerful and formidable character, adapted to stabbing and cutting.

The blade presented marks of having been recently cleaned and filed. The indentations on the back of the knife were apparently untouched, and when carefully scraped and excavated with the point of a bright piece of steel, yielded dark red masses or particles resembling flakes of dried blood. Microscopical examination and chemical analysis determined that the particles presented all the properties of dried coagulated human blood.

In like manner the handle was subjected to minute examination, and by carefully scraping the sides of the cleft which received the

cutting edge of the blade, dark redish brown flakes were obtained, which, under the microscope and under the action of chemical reagents, presented the characteristics of human blood.

## (2d.) Pocket-book:

Length of red pocket-book.  $8\frac{1}{4}$  inches. Breadth.  $3\frac{3}{4}$  " Color of pocket-book, bright red. It contained 5 divisions.

It contained a divisions.

The clasp was deranged.

One end of the pocket-book contained patches of dark redish material, which in several spots glued the divisions together.

Careful examination demonstrated that the scales, which were readily detached from the surface, presented all the essential microscopical and chemical characteristics of dried human blood.

## (3d.) Bank bills:

Microscopical and chemical examinations showed that the spots on the bills were due to blood.

(4th) The spots on the collar were due to human blood.

Dr. Fordes Winslow relates in the columns of the Echo how in Alexandria, when some cholera soiled linen was about to be burned, an Egyptian offered to buy it for the purpose of converting it into cigarette papers. Although Dr. Winslow does not state whether or not the offer was accepted, he evidently thinks the possibility a very alarming one. Although, doubtless, most people would prefer cigarette papers made out of unsoiled damask tablecloths, the risk of infection by such means must be very small. If disinfection be ever more than effort of the imagination, surely the elaborate process of converting rags into paper must accomplish the perfect sterilization of the infected linen. The risk, if any, would lie in the removal and transport of the linen, and not in its ultimate conversion.—Medical Review.

By J. Edwin Michael, M.A., M.D., Baltimore, Md., Professor of Obstetrics in the University of Maryland.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

If there is any one thing which distinguishes modern medical teaching from that under which our fathers, and, indeed, most of us, grew up, it is the decadence of the didactic lecture and the advance in the adoption of the demonstrative methods. Laboratory instruction has indeed been pretty closely associated with the teaching of the elementary branches for many years and with an everincreasing importance. Anatomy has had its dissecting rooms, physiology and chemistry their laboratories. Medicine and surgery have been taught in clinics, as have also the various specialties, where the student looks on from a safe distance and has to accept the statements of the clinician on faith. The clinic must, from the the very nature of humanity, in many cases, degenerate into an exhibition of the skill of the professor rather than a means of instructing the student, and the resulting graduate enters the field of professional life with too limited an acquaintance with the contingencies with which he will have to deal, to justify the reposition of much confidence in himself. This deficiency in actual contact with disease and unfamiliarity with the use of means and measures indicated, resulted in the hegira of American medical students to Europe, where the abundance of clinical material and the facilities for closer clinical study were to be had. The deficiencies of many of our schools of medicine in this particular are still quite obvious, and the success of the post-graduate schools in the larger cities of the country is satisfactory proof that the degree-giving institutions do not fully prepare their students for actual clinical work.

The branch about which we are to speak has probably suffered more than any other from the methods of teaching formerly in vogue, and still it is one in which actual clinical teaching is perhaps more of a desideratum than any one of the departments of medicine. When a young graduate enters the lying-in chamber for the first time and reflects on the fact that he has two lives depending on his skill, and that he has not had the smallest opportunity to perfect himself in the practical workings of the theoretical obstetrics he has learned at college, he may well pause before he assumes such

grave responsibility. He may well find fault with the Alma Mater who has given him a diploma which claims for him such skill as the case may demand without once putting him to the test of actual practice. And yet this is the state in which most of us began practice. It is true that the fearful mortality which attended the attempts to form obstetric clinics before the antiseptic era was a good and sufficient reason for giving them up, as had to be done in some cases, but the fact remains that if a student is launched upon the public with no actual training, his earlier patients have to suffer while he is gaining experience. Fortunately, the introduction of the antiseptic system has made the obstetric clinic a possibility, and even reduced the mortality and morbidity of well managed hospitals below that of private practice, and there is now no excuse for neglect of clinical teaching in obstetrics which does not apply equally to other branches. Medical schools are availing themselves of this advantage all over the country, and the result must be that our younger brethren enter the field of practice much better equipped than we did. The problem which now faces teachers is, how to best utilize the abundant obstetric material which is to be found in all large cities in such way as to yield the best results in teaching with the minimum of damage to the patients. One point of great consolation presents itself here. The patients who come under care in an out-patient obstetric clinic are such as would otherwise be the patients of the most ignorant, and hence most dangerous, class of midwives, and there is not the slightest doubt that they are safer by far with the students who attend them than they would otherwise be.

The object of obstetrical teaching is to prepare the student to practice the art of midwifery in the most approved manner. I propose, in this paper, to consider the subject from that point of view, and to discuss with some detail the manner in which this object may be best attained. We have in obstetrics, as in the other branches of medicine, an art as well as a science to deal with, and we would be in error as much if we should undertake to teach the science without reference to the art as we would be if we should take the opposite course. In order to do our work thoroughly, we must combine the two. First, the elementary principles should be taken up and the groundwork laid well by a thorough inculcation of the anatomy and physiology of the parts and processes involved. Then

should follow the pathology. In other words, the didactic course, either by lectures or text books, or both. Contemporaneously with this there should be demonstrations and practice by means of artificial paraphernalia, the bony pelvis, the fætal head, the fætal cadaver, the manikin, together with practice in diagnosis and manipulations with or without instruments. Clinical work in the lying-in hospital under the supervision and instruction of those competent to give it, should be next in order, and this should be succeeded by actual attendance upon cases in the out-patient department, under limitations as to the contingencies in which aid shall be summoned, and with such aid always at hand. Let us consider these matters somewhat in detail:

1. The Didactic Course.-I regard the didactic course as the least important of the means which are to be used in the instruction of the student. It is true that some men learn better with the car than with the eye, and this is particularly true, as a rule, of the men who are the least well educated, and for the advantage of these it is well that a didactic course should be given. Moreover, there are certain explanations and demonstrations which should always form an important part of such a course, which serve to make facts already partially understood more clear. The didactic course serves also as a ready means of communication between student and teacher, if the teacher makes himself approachable and shows such willingness to answer questions and clear up difficulties as he should. Those little five-minute talks which follow every lecture do more in many instances to clear the mind of the student than much regular study. In the main, therefore, I am inclined to look with some favor on the didactic course and to regard it as a boon to the average student, but it must not be forgotten that it gives the student but nttle more than can be attained from the intelligent study of a good text-book.

2. By Artificial Paraphernalia.—When we come to consider the effect of actual handling and study of the bony pelvis and feetal head, we have to deal with the only means by which the student really ever comes to appreciate the mechanism of labor. By this means alone, with the parts disembarrassed of the softer structures which confuse us so thoroughly, even in the study of the same process in a real clinical case, he can acquire a practical familiarity with the ever-changing relation of the diameters of the feetal

head and maternal pelvis and the consequent substitution of diameters which can pass, for those which cannot. The fœtal cadaver is invaluable, even if it were to be used alone as a means of study of the parts with which we must deal clinically. The sutures and fontanelles, as demonstrated on the skull, are very different to the touch made through the edematous scalp. But when the fœtal cadaver is used in connection with the manikin, we have an arrange. ment which, for all mechanical purposes, comes very near the real case. Here the first principles of palpation, an art too much neglected, may be learned. Diagnosis by touch of fœtal presentations and positions is almost as good as in the clinic, and, so far as version high and low forceps and the graver capital operations are concerned, the artificial arrangement about equals its prototype. One must not forget that in this kind of artificial study the student does not confine himself to the attainment of facts and methods. A most important part of his work is the acquirement of manipulative dexterity which will stand him in such good stead in his actual work. This point is more deeply impressed on me by my experience in the dissecting room as demonstrator of anatomy. I often had occasion to call the attention of students to the fact that their dissecting-room work was not only a means of learning anatomical facts, but that it was at the same time their first lesson in operative surgery, and that unless they learned to dissect well they could not ever expect to operate well. So the first application of forceps to a man who has had the advantage of this artificial train. ing is not the same ordeal it is, or ought to be, to one who has not been so fortunate. He has only to consider the clinical conditions. The operative technique comes as second nature to him.

3. Hospital Work.—So far as American physicians, especially those who have not had the advantage of foreign clinics, are concerned, the later generations only have had the advantage of training in obstetrical hospitals. If most of us would only look back over our careers and picture the circumstances which surrounded our first entry into the obstetrical chamber, I think we would find ourselves in a position to envy our younger brethren in this matter. My own obstetric training, when my diploma was handed me, consisted in having seen one forceps operation on a poor woman, who died three or four days later of child-bed fever. I had never ausculted, palpated or otherwise examined a pregnant woman. My

first forceps operation was done far from help in a somewhat remote country district, and, although it terminated happily, it was more by the grace of God than in virtue of any preparation I had had for it, and reflection upon the circumstances which surrounded it and my then utter unfitness for its performance, makes me shudder at my own boldness. When I think of this, as I look over the lists for work in hospital, I am more and more impressed with the improvement which has taken place in obstetrical teaching. Hospital work is the real test and training which logically completes what has gone before. The obstetrical work in a modern hospital should represent the best practice of the day. Of course the work will necessarily vary with the character of the teacher who has it under control. This is, however, equally true of the other teaching of the department. My own idea is that it should be advanced, though conservative. Modern obstetrics should be taught, but the methods should have as much fixity as true conservatism will allow, and should not be changed with every veering of the winds of doctrine. When an advance is clearly demonstrated as correct and has had sufficient clinical support to maintain its position, it should become a part of the hospital technique Students need a certain amount of dogmatism, and it is one of the most difficult tasks of the teacher to graduate the proportion. Rules should be definite and so arranged to cover, so far as it is possible, all probable contingencies. This inculcation of exact method is in itself invaluable to the student. In no respect is this so apparent as in the applications of the antiseptic method of treatment and preparation. Such a thorough grounding in these all-important matters as one gets in a well regulated hospital will last a life-time. When possible, the hospital should also be made the school for ante-partum diagnosis, and the material should be used largely for instruction in auscultation, palpation and touch courses. I have no doubt that the neglect which these things confessedly suffer at the hands of the general practi-tioner is, in large part, due to the insufficient training in them which the student receives. There will doubtless be much improvement in this in the near future.

4. Out-Patient Work:—It happens, unfortunately, that in many medical schools the clinical instruction in obstetrics is confined either to hospital work or to out-patient service. It is better, where possible, to have both these departments, for out-patient service

follows as logically the training in hospital, under the direct supervision of the resident physicians, as the latter does the preparatory work with manikin and cadaver. Out-patient work, properly conducted, is actual practice with the important advantage that the student engaged in it is always at liberty to call in aid whenever required, and should, in fact, be instructed to do so. I do not think it right to entrust such patients to the absolute control of even advanced students who have had hospital training. It is true that most students would have the proper sense of responsibility and would call in aid at proper times, but there are some whose zeal outruns their knowledge and whose desire to distinguish themselves is apt to make them reckless. Therefore a system of rules and limitations is needful in order that all may know not only when they may, but when they must, call for a consultation. Another point of great importance in the conduct of an out-patient department is the cultivation of a proper demeanor towards the patient. If there is any class of human beings who can legitimately claim all possible kindness and consideration from men it is the class we deal with in such a clinic. Young men are, as a rule, well disposed, and a little encouragement in the direction of courtesy to patients goes a long way in the direction of establishing a proper line of conduct. Careful attendance after confinement should be insisted on, and the keeping of a daily record of vital signs should be made a matter of duty. The conduct of such attendance and the revision of the records of the cases practically compels close observation of the case during the lying-in period, and teaches the student in spite of himself. Thus one is taken gradually and safely from generals to particulars, from theory to practice, under the shielding wing of his Alma Mater, and at the end of such an experience if he be not able to walk alone, he must attribute the fault to himself, and not to lack of opportunity.

I consider no apology necessary in laying this matter before you. When I reflect on my own obstetrical capacity at the time of my graduation and on that of those of my companions with whose acquirements I was best acquainted, and presumably of those of the generality of medical graduates of my time, I think I am in a position to appreciate the difference between then and now; and I confess that I feel proud to know that I am doing something towards improving the former state of affairs. I have tried to make

my clinic correspond to scientific obstetrics just as a chemical or physiological laboratory corresponds to, and supplements, the didactic instruction in those branches; in other words, to make the teaching of the branch objective and tangible. No part of the general practitioner's work is more important to him or his patients than obstetrics, and I deem it the duty of the medical schools to prepare him for it in the most thorough manner.

## "COELIOTOMY," VERSUS "LAPAROTOMY," AS A SUR-GICAL TERM

By ROBERT P. HARRIS, A.M. M.D., Philadelphia.

When you perform an abdominal section, and report the case, under what scientific term do you describe the operation? You probably call it a "Laparotomy." because hundreds of operators are in the habit of using the same word, or its synonym, in a dozen countries and languages.

Where did this term originate? You say it has a Greek derivation (the language of Greece having been the tongue of the first anatomists) and comes from two words, lapara and tomæ, to cut. Now, what did the Greeks call the lapara? It was certainly never the abdomen.

Did you ever look carefully into an ancient Greek anatomy to find out what the abdomen was really called in their language? The word belly appears ten times in the English version of the New Testament; did you ever note that the original Greek has the word koilia, and never lapara, in these ten places?

Rufus, of Ephesus, a distinguished physician and writer, born A. D. 112, wrote a paper entitled "Names of the Parts of the Human Body," in which he has this significant sentence: "The omphalos (navel) is the hollow which occupies the middle of the koilia, where we cut the veins that nourish the fœtus; the middle part of the hollow is the akromphalon" (top of the navel).

"Lapara" is a very old Greek term, and was applied in the time of Hippocrates to the parts between the short ribs and the iliac bone (the flank), and scores of old lexicographers have thus defined it. The operation for lumbar hernia, or laparocele, was a true laparotomy; and so, also, is that of lumbar, or laparo-colotomy. The term *lapara* originally meant a hollow, and was for this reason applied by the early anatomists to the hollow of the waist. It was never used to designate a convexity.

The misapplication of the term "laparotomy" commenced in the year 1811 in the medical thesis of a Wittenberg student of the name of Fiedler, who wrote in Latin under the title "De Laporatomia." He had witnessed a true laparotomy performed, on October 17, 1810, upon a man of fifty with a diseased colon, as he lay on his right side. Fiedler wrote again in 1817, and took it upon himself to coin such distortions as "laparo-gastrotomia," "laparoraphia," and "laparo-hysterotomia"—his desire seeming to be to supplant the term "gaster," which really meant the belly, by the word "lapara," which a careful investigation would have taught him was not its Greek synonym. The mystery is how an error of this kind ever made the progress that it has it leading the medical world astray.

"Koilia" being the Greek word for abdomen, the natural synonym of gastrotomy in its old meaning is "coeliotomy," pronounced soft (se-le-otomy). This is not a new coinage except as to its terminal, for we have long had coelio-paracentesis for tapping the abdomen. The term coeliotomy has been adopted by Professor Sanger, of Leipzig; by Dr. J. Greig Smith, in-his Abdominal Surgery; by Profs. Keene and White, in their Text-Book of Surgery; and by a number of well-known medical writers. This adoption gives us the compound terms coelio-hysterotomy (Cæsarean section), coelio-hysterectomy (exsection of uterus through the abdomen), puerperal coelio-hysterectomy (Porro-Cæsarean operation), coelio-nephrectomy (abdominal exsection of the kidney), etc.

What characterizes the present position of our condemned term is its wonderful tenacity of hold in the nomenclature of gynecological writers who have admitted the error of its application in abdominal surgery. Two years ago I published a classical pamphlet on the subject, and sent it to prominent writers in thirty different countries. I also sent a copy to every Fellow of one of our leading national medical societies just before it met in annual ses sion in 1890, and their letters attested its effect upon their sense of reason. It convinced them that lapara was not the abdomen, and that koilia was; but it did not break up the habit of use, as sh

by the fact that four papers entitled "Laparotomy" appeared in their Transactions for 1891, and the term was time and again made use of throughout the volume, but no one said "coeliotomy" as much as once. The old rut is so easy to run in, and the laparotomy wheel will get in. It took eighty years to propagate the error, and it will take time to correct it.

Menstruation in an Infant.—Dr. O. E. Tchernomordik, of Tchashniki, relates (*Vratch*, No. 4, 1892) the case of a normally-developed and generally healthy girl who has been regularly menstruating since February, 1891, when she was not quite one year old. The hæmorrhage recurs every four weeks, lasting on each occasion four or five days, and being accompanied by occasional pain about the hypogastrium. The first menstruation was preceded by some fever, an urticaria-like rash over the whole body, and general restlessness lasting for three days. The symptoms subsided with the appearance of the bleeding. The girl's mother is somewhat nervous, but otherwise healthy. She began to menstruate about the age of 15.—*Brit. Med. Jour.* 

Chicago Drainage Canal.—The canal which is to take the sewage of Chicago toward the Mississippi river and relieve the lake and the water-supply from the filth which is now poured into it in large quantities, has been begun (Boston Medical and Surgical Journal). This canal will take from Lake Michigan 600,000 cubic feet of water a minute, which it is hoped will be enough to dilute the sewage sufficiently to make the region tolerable through which the canal will pass. From the point at which the Chicago river leaves Lake Michigan to the Union Stock Yards is about four and a half miles, and it is at this point that the canal will leave the Chicago river and run about thirty miles to the Des Plaines river near Joliet. It is estimated that it will take four or five years to complete the work and that the cost will be from twelve to twenty million dollars. The drainage district will comprise the city and considerable outlying territory.—Medical Review.

## SELECTED PAPERS.

PREVENTIVE MEASURES FOR INDIVIDUALS DURING TIMES OF ACTUAL OR THREATENED PREVALENCE OF ASIATIC CHOLERA.

By E. O. Shakespeare, M D., Philadelphia.

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Regarding the comma bacillus of Koch as the infectious agent, it has been established by numerous and exact experiments that this microbe is not only able to live for a considerable length of time in water, but is even capable of enormous multiplication therein, specially if the water contain a certain amount of organic or vegetable material. The use of such contaminated water for drinking, bathing and culinary purposes is perhaps the most frequent mode of introduction into the human organism of the contagious principle of cholera infection.

Experience has abundantly proved two laws, which have an important bearing upon the spread of cholera: (1) The tendency to infection varies exceedingly among individuals, and is with the majority small. (2) Disturbed conditions of the digestive apparatus greatly increase the susceptibility of an individual and render him far more liable to an attack after exposure to the infection.

Protective measures may be considered from two standpoints: A.—with regard to the person suffering from an attack of the disease. B—with regard to the healthy individual exposed to infection.

A.—With regard to the person suffering from an attack of the disease: The evacuations from the stomach and the bowels should be immediately disinfected; where this is thoroughly accomplished, it is impossible for the infection to spread beyond the attacked. The dejecta and the vomited matter should be passed into a vessel containing a quart or more of a strong solution of carbolic acid—one part to twenty of water or of chloride of lime, 10 per cent.

strong, and immediately after the evacuation a sufficient amount of the disinfectant should be added to make the whole quantity equal to the bulk of the evacuated material; the whole should then be gently stirred, and afterward allowed to stand for fifteen to twenty minutes, when it should be removed and emptied into a pit containing unslacked lime, and be immediately covered by a quantity of the same material. If circumstances render it impossible thus to dispose of the disinfected evacuations, they should be emptied into a large earthern vessel containing a quantity equal to their bulk of a solution of chloride of lime, 10 per cent. strong and stirred thoroughly therein; after remaining there for an hour or more, they may be emptied into a drain which leads to the sewer. The clothing of the patient as well as the soiled bed-linen, immediately after removal, should be disinfected by thoroughly soaking for an hour or more in a large quantity, more than sufficient to cover them, of a strong solution of carbolic acid, one part to twenty; or they should be immediately subjected to the prolonged action of boiling water or steam. The anus, hands and mouth of the patient should also, immediately after an evacuation, be washed with a disinfectant in this case, however, weaker than the above indicated, say one part to 2,000, of bichloride of mercury and water, for the anus and hands, and for the mouth water slightly acidulated with sulphuric acid. The hands of the attendants, also, should be washed with the same weak solution of bichloride of mercury after handling the patient. Under no circumstances should the attendant, or any one else, eat in the same room with the sick; and, as an invariable rule which should be scrupulously observed, no person who has been in direct contact with the sick or with any of his personal effects should eat without first thoroughly cleansing and disinfecting the hands.

B.— With regard to healthy persons exposed to the infectious principle of the disease: Remembering what has already been remarked concerning an increased susceptibility to infection by reason of disturbance of the digestive apparatus, it is strenuously insisted upon that all causes, of whatever nature, of disturbance of the functions of the stomach and intestines, should be studiously avoided—such as intemperance of all kinds, either in drinking or in eating; all irregularities of personal habits, either as to the time of meals, occupation, exercise, or hours of sleep; all emotional ex-

citements should be removed; in short, every circumstance which experience has shown may exercise a disturbing influence upon these important functions, should be carefully guarded against; the use of articles of food which are liable to occasion indigestion, or to cause an unusual or unhealthy activity of the digestive apparatus, should be interdicted; children should be carefully prevented from indulging in exhausting sport or exercise, and should be carefully shielded against intemperate weather; it is all-important that the functions of the skin should be kept regular and active by a sufficient amount of seasonable clothing by day and by night; particular care should be taken that revulsions of blood, produced by chills, from the cutaneous surface to the internal organs, especially the abdominal, may not occur, and in this connection it is strongly recommended that the abdomen be enveloped at night by a broad band of flannel, in order that during restlessness in sleep the skin of the abdomen may not be exposed to the direct action of the air; cold baths should be avoided; the surface of the body should be washed at not too frequent intervals, by sponging with tepid water, and afterward dried thoroughly by vigorous rubbing with a rough towel; meanwhile the body should be protected from draughts. irregularity and intemperance in eating and drinking have already been alluded to. It is important that imbibition of large quantities of water or other fluids at intervals between meals be avoided, for, if there were no other reason, it is a well known physiological fact that in the intervals of digestion the reaction of the gastric juices is neutral and sometimes even slightly alkaline. If contaminated water or milk should be allowed in large quantity during this interval, it is clear that the probability of the living infecting agent passing through the pylorus into the small intestine is greatly increased, and the possibility of an attack much enhanced. In a house where a cholera patient is suffering, the children should be kept out of the sick-room, as all others not in attendance upon the sick. But if, as often occurs among the class of people who are mostly the sufferers from cholera—the poor and the squalid—there be only one common room for the use of the family, no one should on any account be permitted to occupy the same bed as the sick, and during the day, as also during the night, all should avoid as much as possible contact with the sick bed.

Attention to the preparation of food is a matter of extreme im-

portance to all persons exposed to the infection of cholera, and especially to children. It goes without saying, that the materials consumed should be perfectly fresh and sound in every respect, and that the water and milk employed should be absolutely free from the living infecting principle, as well as pure and healthy. As a guaranty against the possibility of infection by means of water or milk, both should be thoroughly boiled before use, and, as it is possible for the cholera-microbe to multiply, both in water and in milk, the boiling should be very recent. Coffee and tea should be recently made and served hot. All food should be thoroughly and recently cocked. No raw fruit, of any description, except, possibly, a moderate quantity of perfectly fresh, ripe and absolutely clean fruit, should be eaten. Salads and other such articles should be interdicted. Bread, as well as butter, should be carefully protected against the possibility of contamination. The culinary utensils and tableware should be scrupulously cleansed with boiling water.

The hygienic condition of the dwelling and its surroundings should be made as perfect as possible. All decaying animal or vegetable matter should be removed. The house drains should be free and clean, and flushed with a sufficient amount of water at intervals, followed by the emptying therein of a liberal quantity of strong solution of copperas in water, or of a five per cent. solution of carbolic acid. The cess-pits and the privies should be kept clean and free from odor by the use of unslacked lime, large quantities of copperas, or other similar inexpensive materials. The supply for drinking-water should be scrupulously guarded from possible contamination of any kind.

Among the precautions to be enforced against a threatened attack of Asiatic cholera in anyone, but especially in the young, one of exceeding importance is watchfulness over the condition of the alimentary canal. In a large number, perhaps the majority of instances, an attack of cholera is preceded some hours or days by derangements of the digestive apparatus, such as distress or a sense of fulness or heaviness in the stomach, of gastralgia or nausea, or of occasional vomiting; or the disorders may be limited to the intestines only, and be manifested by vague general abdominal uneasiness or slight fleeting pains, or active peristaltic movements which can be seen or felt through the abdominal walls; and all or any of these may be associated or end with diarrhea, and sometimes with

a tendency to disproportionate prostration or, again, the disorders of the stomach and intestines may be combined.

If these disturbances of the alimentary tract are properly discovered and remedied, many an attack of cholera will be thereby avoided. In such cases absolute rest in bed, and, if possible, also total abstinence for a day or two from food, should be enjoined; if there be reason to infer the presence in the stomach of undigested food, a single emetic dose of ipecac should be administered; or if there be visible peristaltic movements of the intestines, or diarrhoa, these should be controlled respectively by small doses of opium in a convenient form, and of such drugs as salol, naphthalin, or analogous compounds.

What has been thus far said applies especially to individuals; but unfortunately, in this disease, public interests and relations must also be regarded, and from this standpoint, so long as there are in the locality only a few scattered cases of the disease, the utmost effort should be made to prevent the establishment of an epidemic.

It is obvious that the evacuations of the intestinal canal of the attacked should, without loss of time, be carefully disinfected. But by no means all suffering an attack of cholera infectiosa are, especially in the earlier stages of the disease, so ill that they cannot be out of bed, and even out of doors engaged in their ordinary avocations. Yet experience has abundantly proved that those suffering "a walking attack" carry in their intestinal canal the infectious agent of cholera, and are capable, under favoring circumstances, of establishing a centre of infection wherever in their movements they may chance to avoid these intestinal contents. Hence the necessity of temporarily restricting the liberty of all inmates of the infected dwelling and of all persons in close communication with it, whether at the time of infection they are evidently suffering or not. All such persons should be isolated and kept under strict surveillance until the extreme limit of the period of incubation (say five or seven days) has fully elapsed, counting from the commencement of the surveillance. If, during these five days, no sign of even a slight or "walking attack" has made its appearance, and finally, if a culture-test, as already described, of the feces, has indicated the absence of the comma bacilli of Koch, the individual temporarily restrained of his liberty, both for his own benefit and for that of

the public, may be without danger restored again to the full enjoyment thereof.

To summarize and express in a single sentence the precautions which are effective against Asiatic cholera; keep clean, live regularly, eat moderately, eat and drink nothing that has not been subjected to a high temperature recently; never eat before thoroughly washing and disinfecting the hands. Pay no attention to prophylactic medicine. If any of them are good, they are not needed if the above precautions are strictly observed.

I have, in this popular essay, purposely avoided discussing anything which is not at present entirely practical. I have not mentioned preventive inoculation, which, I am convinced, will become, in the very near future, one of the most certain means of preventing an attack of Asiatic cholera, as well as stamping out quickly an epidemic.—University Medical Magazine.

# REMARKS ON HAFFKINE'S METHOD OF PROTECTIVE INOCULATION AGAINST CHOLERA.

By E. H. Hankin, Fellow of St. John's College, Cambridge; Chemical Examiner, Analyst and Bacteriologist to the Northwest Provinces, India.

As I have recently been subjected by M. Haffkine to his anticholera inoculations, I propose to give an account of my experiences and a description of the method employed in the production of the vaccine.

In the course of his researches on the cholera vibrio which have been carried on during the last two years, M. Haffkine has met with many facts which tend to remove the difficulties that have hitherto stood in the way of accepting this microbe as the cause of cholera. Among these difficulties may be mentioned the impossibility of reproducing a disease in any way resembling human cholera by injections of Koch's vibrio into animals. M. Haffkine has recently succeeded in doing this in rabbits by a very simple and ingenious method. It is well known that the blood serum of the rabbit has the power of killing the cholera microbe. By cultivating the vibrio,

first in diluted and then in undiluted rabbit's serum, M. Haffkine has succeeded in "acclimatising" it, so that at length it is completely unharmed by the bactericidal action in question. If a small quantity of a culture in rabbit's serum of these acclimatised vibrios be injected into the veins of a rabbit, the animal will succumb, showing symptoms which M. Haffkine assures me are extremely similar to those of typical cholera. During the collapsed condition that precedes death, cramps are frequently observed, and on postmortem examination the intestine is found to be filled with the typical "rice-water" secretion. The latter, and also the mucous membrane of the intestine, contain the vibrios in large numbers. In some cases they have been found in the bile duct and ureter, but never in any other part of the body. Generally these symptoms appeared within a few days of inoculation, but more rarely the animal remained in apparently good health for periods extending to a couple of months before the symptoms developed. These latter experiments suggest an explanation of those anomalous cases in which a patient has been observed to succumb to a second attack of cholera during the same epidemic. Perhaps he had never been really free from the virus after his first attack. The cholera may have existed in a latent condition, as was the case with these rabbits. I owe my best thanks to M. Haffkine for his permission to mention these results. It is to be hoped that he will soon publish an account of them in detail.

In this, as in many other cases, the first step towards obtaining a protective vaccine was the preparation of an abnormally virulent form of the microbe, the so-called virus fixi or virus exalté. M. Haffkine succeeded in this by passing the microbe through a series of guinea-pigs. If a guinea-pig is inoculated into the peritoneum with a suspension of an agar culture of the microbe, it will succumb, and in the peritoneum is found an exudation containing a larger or smaller number of the vibrios. If this exudation is injected into the peritoneum of a second guirea-pig, the latter will also succumb, and so on with a third; but, unless certain precautions are taken, the series cannot be kept up. Each successive exudation will be found to contain fewer and fewer microbes, and at last the total number of microbes present will not be sufficient to kill the next guinea-pig in the series. To avoid this result a procedure has been adopted based on the following facts: The quantity

of exudation formed varies in different cases. Usually, if a large guinea-pig is employed, a copious exudation. containing relatively few microbes, is produced. A small guinea-pig, on the other hand, vields a small quantity of exudation rich in microbes. Apparently the quantity of the exudation is a measure of the power of resistance possessed by the individual. M. Haffkine has based, on these facts, his method of passing the microbe through a series of animals. A guinea-pig is inoculated into the peritoneal cavity with cholera vibrios from an agar culture. On its death the peritoneal exudation is remove I with a pipette, placed in a test-tube, and left for several hours at the temperature of the room. If it is abundant (several cubic centimetres), it is then injected into the peritoneum of a small guinea-pig. If, on the other hand, it is in small quantity (1 cubic centimetre or less), it is injected into a fully-grown animal. On the death of the animals in the former case, the liquid injected will be found to have become concentrated; in the latter case, an increase in quantity will be observed. By attending to these precautions, the cholera virus can be passed through an indefinitely long series of animals. From each exudation in a series, an agar culture is made for the purpose of controlling the purity. Each successive culture will be found to be more virulent than its predecessors: also the guinea-pigs in the series die in shorter and shorter times after injection of the exudation. Between the twentieth and thirtieth passage the maximum degree of virulence appears to be reached. At this stage the peritoneal exudation is fatal to guineapigs in six to eight hours after its injection into the peritoneum. Agar cultures made from such an exudation also possess and retain this increased degree of virulence. Microbes from these cultures can kill rabbits and pigeons in doses which would be perfectly harmless if given in cultures of the ordinary degree of virulence. In fact, this virus exalte appears to be about twenty times as violent as the ordinary form of the microbe.

As above stated, this virus exalte is rapidly fatal to guinea-pigs when injected into the peritoneum. It also kills them with certainty when introduced into the intestine or when given per os after neutralization of the gastric juice with soda and quieting the intestines with opium according to Koch's method. It also differs from the ordinary form of the microbe in that it kills guinea-pigs when in-

jected in small doses into the depth of the muscular tissue of the thigh.

If, however, it is injected under the skin, this virus exallé does not kill the animal; it produces a purely local malady. After a few hours an extensive ædema develops. This leads to necrosis of the tissues involved. In a few days the necrosed mass of tissue drops off, leaving a granulating wound. This at length heals completely. The animal is now found to be immune against inoculation with cholera in any way whatever, whether it is tested with ordinary or with strengthened virus, and whether it is introduced into the peritoneum, the intestine or the muscular tissue. Obviously, however, such a method of inoculation could not be practically employed. It is necessary to devise some method of first protecting the guinea pig against the necrosis produced by the virus exalté. This can be accomplished readily by a previous treatment with attenuated virus.

The attenuated virus is prepared by growing the microbe in a slow current of air. About 10 cubic centimetres of bouillon is placed in a flask having two lateral tubulures, and inoculated with the strengthened virus. The flask is placed in an incubator at a temperature of 39° C, and by means of a tube connected with one of the tubulures at one end, and, passing outside the incubator to a water-pump at the other, a slow current of air continually passes over the surface of the bouillon. The other tubulure of the flask is connected with a wash-bottle containing water and placed in the incubator, in order to saturate the entering air with aqueous vapor This precaution is necessary to prevent undue evaporation, as the bouillon only forms a shallow layer at the bottom of the flask. Under these conditions the microbes produce a culture, but then rapidly die. It is therefore necessary to reinoculate them every third day into a fresh flask of bouillon. After each passage the microbes are found to be more and more attenuated. At last, after a series of passages under these conditions, the microbes are found to be so altered that they have completely lost the power of producing necrosis in guinea-pigs even when injected under the skin in exaggerated doses. They still, however, retain the power of killing these animals when injected into the peritoneum in quantities only slightly larger than is necessary to attain this result with the ordinarv virus.

If a dose of this attenuated virus (say one-eighth of a 24-hour old agar culture) is injected under the skin of a guinea-pig an extensive ædema develops within twenty-four hours. During the next few days this diminishes in size, leaving, however, a hard nodule, which persists for a considerable time. If a week later the animal is inoculated with a similar quantity of the strengthened virus an ædema develops, which is less than in the first case and does not lead to necrosis. When tested a few days later the animal is found to have acquired an immunity against the cholera microbe in whatever way it may be inoculated. This immunity has been found to be undiminished a couple of months after treatment.

Rabbits have also been made immune by the same method. They then show themselves refractory to every form of inoculation, including the method above described, which in the control animals leads to a disease resembling the cholera of human beings. M. Haffkine has also produced this immunity in pigeons These facts led M. Haffkine to try the effect of these inoculations on himself, and afterwards on seven other gentlemen. The following is the account of my own case:

August 16th, midday. Dr. Roux inoculated me with one-eighth of a 24-hour old agar culture of the attenuated virus suspended in 1 cubic centimetre of bouillor in my left side, about 2 inches above the crest of the ilium. 1 p. m., slight pain locally. 4 p. m., swelling noticeable, and pain on movement. 8 p. m., owing to pain on moving found walking about difficult. 10 p. m., temperature began to rise; noticed a feeling of malaise. 12 midnight, noticed temperature of 100°. This was the highest point reached.

August 17th, 7 a.m., woke up; felt better; temperature normal. The swelling formed an area about 8 inches long and 2 or 3 wide, extending towards the inguinal lymphatic glands; painful on pressure, and reddened. 12 midday; during the day I worked as usual in the Institut Pasteur, but had a bad appetite and a feeling of fatigue, which once or twice impelled me to lie down for a short time. 3 p. m.; the swelling extended during the day to the crest of the pubes and to within an inch of the umbilicus. This secondary extension of the swollen area was not painful on pressure, or reddened. 7 p. m., felt bilious. 9 p. m., took four capsules of castor oil.

August 18th; woke up feeling all right after a sound sleep; pain

notably diminished; could walk with ease, and went to a swimming bath.

August 19th, swelling and redness of skin greatly decreased; pain on pressure trivial.

August 21st, p. m., inoculation with one-eighth of an agar culture of virus exalté suspended in bouillon. The injection was made on the centre of the inner side of the left arm. 11 p. m., painful area extended to axilla; slight and occasional headache.

August 22d, 4 a. m., woke up; found it difficult to get out of bed owing to pain, but in a few minutes became accustomed to change of position, and walked about with ease; slight malaise and fever. 6 a. m., felt better. 9 a. m., breakfast, good appetite. During the day, August 22d, slept most of the time, but was awakened every hour to take my temperature; in the evening felt bilious and constipated; took about ½ ounce of liquorice powder; the swelling now extended from the axilla nearly to the elbow; this area was very sharply defined by the redness of the skin. Slept well all night.

August 23d, woke up feeling quite well. Pain had decreased, but the swollen area had extended, reaching about 3 inches below elbow. This secondary extension of the swollen area was not painful on pressure, and the skin had a normal color.

August 24th, pain and swelling notably decreased. Skin beginning to assume a yellow hue.

August 25th, further decrease of swelling. For an area measuring about 5 inches by 3, the skin was colored yellow.

No enlarged glands were noticed all through the experiment. At present the only trace of the inoculation is a small hard nodule, less than half an inch in diameter, at each seat of injection.

With regard to these inoculations I should like to point out that although the ædematous swelling develops with startling rapidity, there is no reason for considering it as likely to lead to any dangerous inflammation. The cholera microbe is not one that is capable of producing pus. Knowing this fact, neither M Haffkine nor I made any attempt to keep quiet or rest ourselves after our inoculations. M. Haffkine happened to be busy after his first inoculation, and, in spite of his fever, worked for twenty-four hours continuously in the laboratory without tasting food. I worked as usual after my first inoculation. Two hours after my second inoculation

I experienced the first part of my fever. It is noteworthy that both M. Haffkine and I had more fever after the second inoculation than after the first. All the other gentlemen who have been inoculated experienced only a trivial elevation of temperature and of discomfort after their second inoculation. Probably this is due to the fact that M. Haffkine and I had our second doses at comparatively short intervals after the first (five and six days respectively), and, as experiments on guinea-pigs indicate, these intervals were too short for the immunifying effect of the first dose to have completely developed.

The seven other cases presented symptoms essentially similar to my own, only, as above mentioned, the second inoculation (which was made after seven or eight days) produced far less general and local disturbance than the first. In two or three cases a transient constipation has been observed to follow the inoculation. In one case diarrhæa had been present for some days before the first inoculation, and vanished the day after it was performed.

M. Haffkine finds that it is also possible to vaccinate guinea-pigs by means of cultures previously sterilized by heat. In these cases the local reaction appears to be less than occurs after inoculation with living cultures. The immunity produced, however, does not seem to be of such a permanent character as that produced by the living microbe. It is possible, nevertheless, that for inoculations on human beings it may be well to commence with sterilized cultures, in order to diminish, as far as possible, the discomfort produced by later inoculations with the living virus.

I may mention here that in all his experiments M. Haffkine employs cultures on agar in preference to those in bouillon. The latter contain far more soluble poisons than the former, and there is reason for thinking that, as with the allied microbe the vibrio Metschnikovi, it is the less readily soluble substances contained in the bodies of the microbes that are concerned in the production of immunity.

What proof have we that these inoculations are of any value whatever in protecting human beings against cholera? If the cholera vibrio is really the cause of this disease, the conditions of infection that obtain in Nature and in the laboratory must be widely different. How, then, can success in producing immunity against "laboratory infection" of a guinea-pig justify us in concluding

that we have obtained immunity against "natural infection" of a human being. Obviously we have no direct and absolute demonstration of the value of these inoculations, and no doubt those people who need such proof before they are convinced will feel themselves justified in being "dead certain" of the futility of M. Haffkine's method for a considerable time to come.

In the first place, it may be noted that the fact that there is a difference—it may be a great difference—between artificial and natural infection, though suggesting a source of error, is not of itself a reason for thinking that immunity against the one is not immunity against the other. In discussing the probability of an animal or a human being immune against a particular microbe, we are concerned not so much with how the microbe can get into the system, but with what it does or does not do when it gets there. If any animal has been made immune against the cholera microbe. it has always been found to be capable of resisting it, in whatever way it may have been introduced into the body. Consequently, if a human being has been made immune against the effects of the cholera microbe when injected under the skin, analogy suggests that he is immune against the same microbe when it seeks to enter the system by the natural way, whatever that may be. But are those gentlemen who have been inoculated by M. Haffkine immune to the effects of the cholera microbe when inoculated under the skin? This is a matter which can be put to the test with great facility. The effects of a subcutaneous inoculation of the attenuated cholera microbe on a human being may be said now to be well known and easily recognized. There is a widespread and rapidly developing edematous swelling and redness, which only vanish gradually after the lapse of several days. A small hard nodule also appears at the seat of inoculation. These changes may be regarded as a distinct character of the cholera inoculation. The fever and malaise, on the other hand, cannot be so regarded; probably a similar injection of almost any microbe would produce a similar elevation of temperature.

Consequently, the presence or absence of a "local immunity" in a human being who has been subjected to M. Haffkine's treatment can be readily tested by a repetition of his first injection, namely, that of the attenuated virus. M. Haffkine has conceived the good idea of performing this experiment five weeks after his

inoculation with the strengthened virus. After the injection a swelling rapidly developed and as rapidly disappeared. It had almost gone in twenty-four hours, leaving no hard nodule, as had been the case with the previous inoculations. This result is sufficiently striking when it is remembered that the ædema produced by the first inoculation in M. Haffkine's case took nine days to disappear. As might have been expected, a passing rise of temperature was produced, but this also took place in a guinea-pig that had received the same repeated inoculation, and that had previously been proved to be perfectly immune against cholera on several occasions.

Another objection suggests itself. Dr. Cunningham has isolated several distinct and permanent varieties (or, as he prefers to call them, species) of the cholera microbe. Will immunity against one of them confer immunity against another? M. Haffkine's vaccines have been prepared from a cholera microbe of Indian origin, and his inoculated guinea-pigs have shown themselves to be immune against this race. Considering the number of different varieties—a dozen or mole—that Dr. Cunningham has described, it is, to say the least, improbable that a cholera microbe isolated two months ago from a case in the Necker Hospital in Paris should be of identically the same race as the one of Indian origin that has been so long in use in the Pasteur Institute. M. Haffkine finds that a guinea-pig that has been prepared by his method is just as refractory to one microbe as to the other.

Is this method of inoculation likely to confer a permanent immunity? To this question no definite answer can be given as yet. Guinea-pigs inoculated by the same method as has been employed for human beings have been found after two months to have lost none of their immunity. A priori, it is far more probable that an inoculation with virus exalté should confer a lasting immunity than a slight attack of cholera. In human beings the immunity can always be tested from time to time by a subcutaneous inoculation. In the event of a lasting ædema being produced by this test inoculation, it can form the starting point for a repeated treatment. It may be noted that there is no reason for thinking that this method of inoculation could be any source of danger to other individuals. There is, on the other hand, every reason for believing that the

microbes injected are rapidly destroyed in the body, most probably in situ.

Lastly, it is important to remember that very probably after the first inoculation, less probably after the second, there may be a temporary diminution in the power of resisting the entry of the cholera microbes. Most probably within three or four days of the injection the power of resisting the attack of the cholera microbes has returned to normal, and after that time will continue to increase. If this is so, these inoculations should not be practised in a given place at the time that an epidemic is raging, without great caution. Before forming a definite conclusion with regard to this, further experiments on animals are needed.

The evidence at present existing shows that M. Haffkine's method of inoculation is not attended by any grave disturbance of health, and that it can be practised on human beings with perfect safety. The fact that it produces immunity against cholera in any form, in animals of such widely different organization as guinea-pigs and pigeons, gives reason for hoping that it may produce an equally good effect in human beings, but it must necessarily be a long time before we can possess any direct evidence of any value on this point.—British Medical Journal.

### SUTURING OF DIVIDED TENDONS.

By A. H. Meisenbach, M.D., Professor of Surgery, Marion-Sims College of Medicine, St. Louis, Mo. (Read before the St. Louis Medical Society.)

On the 10th of January, 1892, I was called to see A. M., aged 19 years. He had gotten his hand into a planer. After the injury was received he had gone to the City Dispensary, where a temporary dressing was applied.

I found the patient had a transverse wound on the dorsum of the left hand, midway between the wrist and the fingers. The wound was about two inches long, extended through the skin, and had severed the extensor-tendons of the little, ring, middle, and that part of the extensor of the index finger that is supplied by the mus. ext. commun. digitorum. The ext. indicis was intact.

The fingers dropped and he had no control over them. Being late in the evening, and recognizing the fact that the uniting of divided tendons would be a job requiring time and assistance, I ordered him to come to my clinic at the Marion-Sims College of Medicine on the following morning. . I applied antiseptic dressings and placed the hand on a splint for the night. On the following morning at the clinic chloroform was administered, and with the aid of assistants I proceeded to operate in the presence of the class. I enlarged the wound transversely, and also made an additional incision as far as the annular ligament, parallel with the axis of the forearm and intersecting the transverse one. The tendous had retracted very high up within the sheath. I attempted to "fish up" the tendon without cutting the annular ligament. For this purpose I used a slender mouse-tooth forceps. My attempts, however, were futile, as the divided tendons were too high up. I therefore enlarged the incision running parallel with the axis of the forearm, to a point three inches above the wrist-joint. Cutting down onto the common sheath of the ext. commun. dig., ext. min. dig. and ext. indicis, I slit open the sheath the entire length of the external incision; I also divided the annular ligament. Having now a clear field for operation, no difficulty was experienced in finding and getting hold of the upper ends of the divided tendons. Drawing the two ends of each tendon together, I united them with a single suture of eatgut, using size No. 1. Having sutured all of the divided tendons, I now united the edges of the divided sheath with a continuous eatgut suture. Opposite the point where I had sutured the tendons I left an opening in the sheath for drainage. When I attempted to unite the edges of the annular ligament, I found that I could not approximate the same by nearly a half inch, owing to the swollen tendons. I therefore simply drew the edges as near together as possible by two or three catgut sutures, leaving a space of nearly a half inch between the edges of the annular ligament. I now united the skin as far as the opening left in the sheath over the point where the tendons were sutured. Into the opening in the sheath I introduced a few strands of eatgut for drainage. The external wound was tamponned with iodoform gauze. Placed the hand in a position of dorsal flexion so as to more thoroughly relax the extensor muscles of the forearm. Careful antiseptic dressing and position on a palmar splint, well padded so as to maintain

dorsal flexion, completed the dressing There was no reaction at any time after the operation. The first dressing remained in situ for about seven days; after that it was dressed every other day. Wound completely closed by the third week, the part which was sutured healing by first intention. Passive motion was now begun.

The functions of the tendons have been entirely restored, with a slight exception in that of the little finger. On closing the hand the little finger cannot be brought down quite as far as the others. This does not, however, cause any inconvenience. The reason why the little finger cannot be brought down is that a little shortening of the extensor tendon took place during the process of repair. It will also be noticed that, on extending the fingers, the scar on the back of the hand takes part in the motion. This is due to the agglutination of the sheath with the tendons. In other words, the tendons instead, as formerly, of gliding through the sheath, now are attached to it, and pull it to and fro when the muscles contract.

It may occasionally occur that where a tendon is cut and no effort is made to unite it, if a little retraction takes place, the ends become attached to the sheath, and this provides the medium of the continuity of the tendon, and the normal leverage of the muscle is kept up. This, I take it, can be a very rare occurrence. In the extension mechanism of the hand we find that we have a system of levers, and we can represent the muscles as the power, the fingers as the weight, and the knuckles as the fulcrum. When tendons are ent the leverage is lessened by destroying the area through which the muscles move in contracting. "Length for motion and breadth for strength," is an anatomical maxim everywhere illustrated in the apparatus of the bones and muscles. In the extensor apparatus of the fingers we find this beautifully illustrat d. The muscles have long bellies, the tendons are long and numerous, and pass through intricate passages and sheaths. This explains why the function of extension is so completely lost when an extensor tendon is completely cut through. The retraction of the muscle is so great that the leverage of the muscle is lost, and thereby the ability to control the part to which it was attached. In time the muscle, having lost its normal point of attachment, and not being called upon to perform its physiological function, becomes weakened, atrophic changes take place within it, the physiological utility of the part or limb is lost.

Surgical text-books hardly refer to this class of injuries, yet their importance we all must admit. To the working man no form of surgery is of greater importance than that of the extremities, and especially that of the hand. These injuries are wont to be relegated to the domain of minor surgery, yet it sometimes requires a higher degree of skill and more exact anatomical knowledge to successfully repair the injury done, than it does to perform an amputation or trephine a skull. Formerly the opening of a tendon-sheath was followed by the most direful results. Tendo-synovitis, with multiple abscess, being the rule. I am sorry to state that even to-day we see occasionally these conditions follow injuries of tendonsheaths, but they are much rarer, and this is owing to the increasing appreciation of the importance of "intelligent first aid to the injured." The responsibility that rests upon the person that first dresses a fresh wound cannot be measured by words. To our young patient the importance of this fact cannot be denied; it meant either utility or crippling of function as the result. There are several points of interest in this case to which I would call attention. The first is the suturing separately of the divided sheath, This is, no doubt, of a great advantage, as it closes the greater part of the sheath from the general wound. No mention is made of this method of treating the wound in the works on surgery to which I have had occasion to refer. The imperfect suturing of the annular ligament, leaving a space between the divided ends, bridged over only by catgut strands, is also worthy of note. Recent investigations in Germany have shown that in resection of tendons it is not essential to a good result that the ends of the tendon be accurately approximated It has been demoustrated that where quite a space exists between the ends of the tendon, and a suture of silk or catgut is placed between them, the products of plastic repair travel along the suture from one divided end to the other, the suture acting as a guide; and ultimately the whole space is filled in by plastic material and the tendon is united. This is what practically took place in the annular ligament in this case. Of especial importance, also, was the incomplete suturing of the tendon-sheath and a catgut drain placed in the same. In this class of wounds drainage is of the greatest importance.

In the suturing of divided tendons, in order to obtain good results, the following indications must be met:

- 1. The utmost care in carrying out complete a septic and antiseptic measures.
- 2. Enlarging the wound to such an extent that a free field for operation is obtained; extensive opening of a sheath, if necessary, to easily catch up retracted tendons.
- 3. Care in suturing the corresponding cut ends with silk or catgut, preferably catgut.
- 4. The ends of tendons, if ragged, may be resected, so as to get smooth edges. If not enabled on this account to approximate the ends, with a suture intervening, good results may still be expected.
- 5. Careful suturing of the sheath with continuous catgut suture, leaving an opening for drainage at the site where tendous are sutured.
- 6. Appropriate position on a splint, the parts being so placed as to relax the sutured tendons.

Dr. WM. Walter, in the *British Medical Journal*, October 1, 1892, reports a case of tubal gestation in a woman 29 years of age, in which both tubes were gravid. Both tubes were removed by operation, with recovery of patient.

SUTURE OF THE LUNG has been carried out by Dr. Guermonprez in a man of eighteen, whose pleura had been opened for a pneumothorax, and had been followed by a persistent broncho-pleural fistula. Portions of six ribs were removed and the orifice of the fistula was sutured with catgut. The patient made a slow recovery, but finally was able to resume work.—Med. Record.

London is still suffering fr m its severe epidemic of scarlet fever. All the hospitals of the Asylums Board are filled with scarlet fever patients, and it is thought that the cases which remain at their homes for lack of accommodation will largely exhaust the 400 extra beds which are about ready in the new hospital. These yearly epidemics are not complimentary to the work of health boards. In Edinburgh, also, a similar epidemic has assumed such proportions that it has been agreed to use a hospital for scarlet fever patients which had been set aside as a cholera hospital.

## EDITORIAL.

### THE NORTH CAROLINA MEDICAL JOURNAL.

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## DR. JENKINS AND THE TRANSATLANTIC STEAMSHIPS

We notice with pleasure that the representatives of the Transatlantic Steamship Companies in New York have passed a series of resolutions endorsing Dr. Jenkins, the health officer of New York. They express the belief that his prompt and manly conduct of the quarantine has averted an epidemic of cholera in that city, and has spared the whole country the danger that was threatening it by an invasion of this disease. This is both timely and just, and will be accepted as the opinion of the people at large throughout the United States. We do not believe there is on record a history of an emergency of like character which has been handled with more consummate skill. It proves that maritime quarantine can be efficient without serious detriment to commerce—that it no longer means the ridiculous detention of the vessel and her occupants and

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cargo without disinfection, which have made it a source of contempt among our English cousins—and it puts the stamp of energy and thoroughness upon preventive medicine in this country, which it will be of service for the unbelievers in our systems to consider.

We trust it will be within the power of medical officers in charge of ports of entry to succeed as well as has been done by Dr. Jenkins and his corps of assistants, and it behooves State authorities to provide their stations with the money and means to grapple with the disease as soon as it appears within the lines of the port. This is the place to corral it. For inland quarantine is, in the very nature of things, of doubtful avail, because of the many avenues that open for the approach of diseases and the difficulty of scrutinizing accurately the persons and freight that pass through them.

#### ANTISEPTIC SYMPHYSIOTOMY.

The introduction of sargical procedures to enable the accoucheur to safely deliver a child from a deformed pelvis, and at the same time save the life of the mother, is always of absorbing interest. There is no doubt a growing reliance upon the improved Cæsarean operation, which makes necessary for its completion the careful suturing of the uterus, in addition to the ordinary steps of a laparotomy and Cæsarean section, but its performance involves the necessity for a knowledge of the technique of laparotomy, and the general practitioner hesitates to attempt it. The outcome of aseptic surgery has been to dispel much of the fear of invading the perito neal cavity, and the results that have come to surgical interference to save both mother and child where delivery was impossible through the natural passage, have been satisfactory and need no new recital. But Morisani, of Naples, proposes as a simpler and safer method than this the section of the symphysis pubis, and we are indebted to Dr. R. P. Harris, of Philadelphia, for a clear account of the operation and its limits of applicability. presence of fibroid tumor, large enough to prevent the passage of the child, the invasion of the neck of the uterus by cancer, preventing its dilatation, coxalgic ankylosis, or pelvic exostoses, forbid the operation. The oblique distortion of the Nægele pelvis and the

ankylosis and transverse contraction of the Roberts pelvis would, of course, prevent the adoption of this new method. We leave the description of the operation in the words of Dr. Harris, which we copy from his paper read before the late session of the Gynecological Society in Brooklyn, and published in the American Journal of Obstetrics and Diseases of Women and Children:

"Mode of Performing the Operation.—The armamentarium required is very simple, viz., a scalpel, Galbiati's probe-pointed, sickle-shaped bistoury, some hemostatic forceps, a needle-holder and needles, a metallic female catheter, ligature silk, gauze and cotton. These having been sterilized and arranged, place the parturient woman on her back at the side of the bed, with her knees drawn up and separated; shave the mons veneris and labia majora, and disinfect the snprapubic region, the vulva, the perincum and vulvovaginal canal. Examine the depth, thickness and direction of the symphysis, and search out the fossa in its superior edge which marks the point of union of the two pubic bones; then examine the inferior margin an I the anterior and posterior faces of the pubes.

"Introduce the catheter, and give it into the hand of an assistant, that he may depress the urethra from the pubic arch and at the same time carry it to the right side to save it from injury. Make a vertical incision through the skin and fat above the pubes, about 23 to 3 inches in length, ending about 3 of an inch above the symphysis, cutting the tissues gently, and passing in a line toward the left of the clitoris so as not to injure it. Detach for a short space the recti muscles from their attachment to the two ossa pubes; introduce the left index finger into the opening and separate the retro-pubic tissue. Then apply the palmar face of the finger against the posterior face of the symphysis, and hooking with it the inferior margin of the articulation, while the assistant attends to the catheter as stated. The operator then introduces the Galbiati knife and hooks the blade around the articulation, cutting the interosseous ligaments and cartilage from within ontward, and below upward. When the section has been completed it will be known by a creaking sensation and a separation of the bones from 11 to 11 inches.

"After this step cover the wound with the gauze dipped in a bichloride solution of 1:4,000, and attend to the delivery of the fetus, having at the same time the separation of the innominata

antagorized by pressure from the hands of assistants. During the passage of the head spray the vagina and ascertain the amount of pubic separation; and when the placenta has been delivered, introduce six or eight interrupted silk sutures into the edges of the wound, dress it with sublimated cotton 1:2,000, and bandage the pelvis and lower extremities.

"These directions are in the main such as have been given by Dr. Caruso and by Prot. Morisani. The latter places the operator between the extremities of the patient and makes the meision 2 or 3 centimetres long. (He has very small hands.) The length of the incision must depend very much on the depth of fat to be cut through. Galbiati's knife has a thick, broad blade, and is now made with a metallic handle, grooved on the two sides, for perfection in cleanliness and sterilization. Dr. Spinelli, of Naples, has had a knife with a movable handle and three blades made by Matthieu, of Paris, so as to adapt the length of the cutting edge to the depth of the symphysis."

It is evident that the days of craniotomy are rapidly drawing to a close, and the obstetrician must seriously consider the responsibility of adopting this once much favored operation in the face of those now offered him.

# EARLY LEGISLATION REGARDING NATIONAL QUARANTINE.

The epidemic of cholera which has so engaged the attention of the whole world, has revived in our country the question of the establishment of a national quarantine, and the appointment by the President of a medical man who shall be known as the Secretary of Public Health, and who shall sit with the President as a member of his cabinet.

Dr. Stephen Smith has contributed a series of articles to the Journal of the American Medical Association, in which he reviews the efforts in the first sessions of Congress looking toward a Governmental protection of the public health. From 1762 to 1791 this country was entirely free from yellow fever, due to the acts known as the "Commercial Monopoly," and the Revolutionary war, which caused an entire suspension of commerce between West

India ports and the United States. However, on the resumption of trade with these Southern ports yellow fever again made its appearance, first in New York, in 1791, and in succeeding years in Philadelphia, Baltimore, Charlestown, Annapolis and in Norfolk, Va. First one of these cities would quarantine against any intercourse with one or more of the others, and the following year the opportunity for retaliation would present itself and be made good use of. This method of quarantine became so burdensome to commerce and such a hardship on the citizens that on December 16. 1790, the merchants and other inhabitants of the city of Baltimore senth a petition to the Fourth Congress, sitting in New York, asking that a health office be established, or some provision made by law, for protecting them against the introduction of infectious diseases. The petition was referred to a committee who reported that it was their "opinion that a law ought to be passed with general provisions in this respect," not only for the port of Baltimore, but for all others into which considerable imports were made. Nothing more seemed to have been done with the petition.

On the 17th of April, 1796, Mr. Samuel Smith, of Maryland, proposed a resolution, "That the President of the United States be authorized to direct such quarantine to be performed on all vessels from foreign countries arriving at the ports of the United States as he shall judge necessary." This was referred to the Committee of Commerce and Manufacture, who reported a bill authorizing (1) the President to direct at what ports and for what length of time vessels should perform quarantine; and (2) that the President be authorized to direct the revenue officers and the officers commanding ports and revenue cutters to aid in the execution of quarantine, and of the health laws of the States as may to him appear necessary. This bill was referred to a committee of the whole, and was fully discussed as to its constitutionality and wisdom, and finally passed on its third reading after striking out the first section. It passed the Senate with a slight amendment, and was approved May 27, 1796. In 1798 yellow fever attained the proportion of a national scourge, and President Adams, in his address, called the attention of Congress to the importance of taking some action to assist the State governments. Mr. Smith, of Maryland, presented a bill and it was passed in both houses and approved February 25, 1799. It provided for the assistance of the State authorities by the Government officers, for the building of suitable wharves and warehouses, and for the unloading and disinfection of vessels under quarantine regulations.

In 1802 Dr. Samuel L. Mitchell offered a resolution that a committee be appointed to inquire whether any, and, if so, what changes were advisable in the quarantine law. In his remarks he desires to do away with quarantine, and, instead of requiring a ship "to perform quarantine," she should "simply be directed to be made clean." He believed the origin of the yellow fever to be in the filthy condition of the ships, which produced what he termed septones, and these should be destroyed by alkalines—soap, lye or lime.

FOR SALE.—Harvard surgical chair, one set torsion balances (new), one air-condenser with pump. Further information on application to this office.

Paris has established hot water fountains, which, for "a half-penny in the slot," furnish two gallons of hot water. The British Medical Journal comments on this move as follows: "The domestic uses of this supply for the poorer slaves and for many housewives is obvious; and so is the sanitary value. Let the water be made boiling by 'a penny in the slot,' and the drinking water question is appropriately solved by compromise. The 'penny in the slot,' may help us to work out some forms of social salvation."

GLYCERIN IN HEFATIC COLIC.—At the meeting of the Académie de Mèdecine, March 8, 1892, Dr. Ferrand (La France Medicale) read a paper on this subject, of which the following are his conclusions: (1) Glycerin administered by the stomach is absorbed as such by the lymphatic vessels, notably by those which proceed from the stomach to the hilus of the liver and to the gall-bladder; it is found even in the blood of the subhepatic veins. (2) It is a powerful cholagogue and a valuable remedy in hepatic colic. (3) In large doses (20 to 30 grammes—5 to 7½ drachms) glycerin cuts short the paroxysm at once. (4) In smaller doses (5 to 15 grammes—1½ to 1¾ drachms) glycerin, taken daily, in a little alkaline water, prevents the return of the attacks. (5) Glycerin, although it is not a lithontriptic, is, however, the remedy par excellence for biliary lithiasis.—Med. and Surg. Reporter.

#### REVIEWS AND BOOK NOTICES.

DISEASES OF THE EYE: A Handbook of Ophthalmic Practice for Students and Practitioners. By G. E. DE SCHWEINITZ, M.D. With 216 Illustrations and 2 Chronio-Lithographic Plates. Philadelphia: W. B. Saunders, 1892. Pp. 641. Price, Cloth \$4.00; Sheep \$5.00.

The author has called to his assistance Dr. James Wallace, chief of the Eye Dispensary of the University Hospital, who wrote Chapter I, on General Optical Principles; Chapter IV, on Normal and Abnormal Refraction, and portions of Chapters III and XIX; also Dr. Edward Jackson, Professor of Ophthalmology in the Polyclinic, who furnished the section on Retinoscopy.

All who are familiar with the author's reputation as an ophthalmic surgeon and as a teacher of diseases of the eye in the Phiiadelphia Policlynic and of Ophthalmoscopy in the University of Pennsylvania, will expect, in this work, one above the average in point of excellence, and they will hardly be disappointed. Specialists in this branch have not been backward in offering text books to the general practitioner, and some of them have been well received, and we doubt not the volume before us will have its place beside the best. Dr. de Schweinitz has had wide experience, and his opportunities have made him familiar with the needs of the student and the general practitioner, who is after the practical part, and, while he has given the reader the results of his own rich experience, he has also given reasonable prominence to the opinions of other surgeons.

Special attention has been paid to the examination of the eye and the sections on ophthalmoscopy and the diagnosis of errors of refraction are very clearly written

THE READY-REFERENCE HANDBOOK OF DISEASES OF THE SKIN.

By George Thomas Jackson, M.D. (Col.) With 50 Illustrations. Pp. 553. Cloth, 8vo. Philadelphia: Lea Brothers & Co. Price \$2.75.

This volume has no table of contents, but immediately after the short preface plunges into the subject matter of Part I, which is devoted to General Considerations, including Anatomy and Physiology of the Skin, Diagnosis and Therapeutic notes, and closing with

Some Dermatological Don'ts. This portion of the book is dwelt upon only to such a degree as is absolutely necessary, as may be inferred when it is stated that it is given only 28 pages.

Part II is devoted to The Diseases of the Skin and their Treatment. The diseases are arranged in alphabetical order, so that they may easily be referred to without consulting the index, which, however, is well prepared. The pronunciation of the names of diseases is given by the phonetic spelling of each, which is divided into syllables and the vowels marked with numerals to designate the sound. The work is intended to give to the busy physician the most useful and the acknowledged facts in regard to dermatology without requiring him to study long essays made up of theories and conflicting opinions. The author has made no attempt to discuss debatable questions, and has succeeded admirably in presenting the subject clearly and concisely.

ESSENTIALS OF DIAGNOSIS, Arranged in the Form of Questions and Answers, Prepared Especially for Students of Medicine. By SOLOMON SOLIS-COHEN, M.D., and AUGUSTUS A. ESHNER, M.D. Fifty Illustrations. 8vo., pp. 382. Philadelphia: W. B. Saunders, 1892. Price \$1 50 net.

This is No. 17 of Saunders' Quiz Compends, and is a very excellent book of its kind. The diseases are classed in the several groups generally adopted in the text-books, and the symptomatology and differential diagnosis of each are given. Some of the illustrations are colored, and the frontispiece shows the thorax and abdomen with front wall removed.

The Principles and Practice of Bandaging. By Gwilym G. Davis, M.D., Universities Pennsylvania and Göttengen; Member Royal College Surgeons, England, etc. Royal octavo, 60 pages. Cloth Geo. S. Davis, Detroit, Mich., 1891.

The author has been fortunate in producing a book for which a place has been waiting, and he will be a wise practitioner who finds a place on his shelves for this work. The subject is divided into three parts—Part I. The Roller Bandage. Part II. The Tailed Bandages or Slings. Part III. The Handkerchief Bandages. The description of the preparation and application of bandages to all portions of the body is very clearly given, and the text is illustrated

by numerous plates, each bearing several figures. To bandage well is an art which all general practitioners have not learned, and a careful study of the work before us will save many feelings of chagrin when told by the patient, at a second visit, "The bandage came off, doctor, and I put it back."

PRACTICE OF MEDICINE. By EDWIN T DOUBLEDAY, M.D., Member of the New York Pathological Society, and J. D. NAGEL, M.D., Member of the New York County Medical Association. \$1.00. Students' Quiz Series, No. 6.

GYNECOLOGY. By G. W. BRATENAHL, M.D., Assistant in Gynecology, Vanderbilt Clinic, New York, and Sinclair Tousey, M.D., Assistant Surgeon, Out-Patient Department, Roosevelt Hospital, New York. \$1.00. Students' Quiz Series, No. 12.

These little books are of convenient shape and size for the coat pocket, and the matter is arranged in the form of questions and answers, as in "quiz compounds" generally. They will be convenient and really serviceable for those who desire to freshen their memories hurriedly on matters they have studied carefully in the text-books; but woe to him who pins his faith to them to such a degree that he depends entirely on the meagre information he gets from them for his knowledge of medicine. Should he succeed in passing the final examination at his college, he would feel very awkward, to put it mildly, if, when he presents himself before the Board of Medical Examiners of this State, he happens to be selected as one to stand a clinical examination.

A Manual of Organic Materia Medica: Being a Guide to Materia Medica of the Vegetable and Animal Kingdoms, for the Use of Students, Druggists, Pharmacists and Physicians. By John M. Maiscu, Ph. M., Phar. D. Fifth Edition. With 270 Illustrations. Octavo, 556 pages. Philadelphia: Lea Brothers & Co., 1892.

The present edition of this work differs from that of the preceding, which was issued in 1890, by having incorporated the observations and investigations which have been made in this branch of Materia Medica in the past two years, and in having the accentuation of the systematic names of plants and animals marked. The articles not recognized by the Pharmacopæia are distinguished by smaller type, while in the former edition the same type was used, but was not leaded. The book will be a welcome aid to the student, as also to the physician who would like to vary the monotony of his routine life by investigating the properties of his native plants. The value of the book would have been enhanced had the time of flowering and color of flowers been given in all native plants.

We hear the S.S.S. man of Atlanta has gone on a visit to Hot Springs, Arkansas, for "rheumatism."—Atlanta Medical and Surgical Journal.

RAPID DILATATION OF THE UTERUS IN UTERINE HEMORRHAGE. -Fifty-two cases of uterine hemorrhage are detailed by Dr. Armand Routh (The Practitioner, July, 1892), and the following conclusions drawn: Menorrhagia, and more especially when metrorrhagia is also present, without obvious cause, necessitates an exploration of the uterine cavity. The best way to explore the uterine cavity is to rapidly dilate the cervix with graduated bougies under anesthesia. That with rigid antisepsis there is practically no risk, and very rarely any subsequent pyrexia, unless malignant disease or salpingitis is present. That even where tubal disease exists or is suspected, exploratory dilatation of the cervix for metrorrhagia of apparently intrauterine origin is not necessarily contraindicated, salpingitis being often secondary to, and aggravated by, intrauterine disease. Here again antisepsis is all important. That when fibroids are really present the immediate cause of hemorrhage may be a removable one, such as a co-existing polypus or a fungoid endometritis, and that therefore the uterine cavity should, when practicable, be explored before removal of the appendages or hysterectomy is entertained. That in some c ses dilatation alone suffices to relieve greatly both the bleeding and the pain. That if an exploratory dilatation was more often adopted prior to the employment of Apostoli's treatment it would tend to a more exact knowledge of its applicability and put its use on a more scientific basis. - University Medical Magazine.

#### CURRENT LITERATURE

#### VISCERAL PHLEBOTOMY.

Dr. George Harley, of London, England, contributes a paper to the *Medical News* of July 23, 1892, upon this subject, in which he points out the great value, in his opinion, of this operation

Originally introduced by him in 1886, in the form of hepatic phlebotomy, it was attacked by a large number of the conservative members of the profession as a dangerous and unjustifiable operation. Notwithstanding this fact, Dr. Harley has persisted in its employment, and in the paper which we quote, advocates the extension of this measure to the relief of other organs than the liver which may be diseased, and points out that Dr. Christian Simpson has lately advocated pulmonary phlebotomy.

Dr. Harley then proceeds to quote two cases, which have already been published, but which he thinks are sufficiently interesting to reiterate.

The first was that of a woman of intemperate habits, aged 38, who was not placed upon the operating-table until she was supposed to be in a dying state from the combined effects of a greatly enlarged heart and an inflamed liver, complicated with ascites and marked anasarca. After she had been anæsthetized, Dr. Harley pierced the upper part of the liver from right to left with an 8-inch long trocar, of the diameter between Nos. 2 and 3 English catheter. The normal liver being at least ten inches broad in the average-sized woman, and this liver being greatly enlarged, he felt safe in thrusting the 8-inch trocar up to its very hilt. This was done with the object of striking some large vessel, which would permit of a sufficiently free stream of blood, to considerably relieve congestion.

On withdrawing the canula an inch or two of blood issued freely, and twenty ounces were extracted. The skin wound was closed with a piece of sticking-plaster, and a bandage applied.

The downward progress of the case was at once arrested, the liver decreased in size, and by means of tapping the ascites and anasarca disappeared. At the end of three months she had entirely recovered.

The second case was one of strumous abscesses of the liver,

occurring in a country lad of 17 years. The liver dulness extended from right nipple level to two inches below the umbilicus, and four to the left of the median line. The liver was punctured in several places, but was so hard and compact from inflammation that little blood was withdrawn. Several hours after the operation, however, free hemorrhage took place through the bile-ducts into the intestines, and within thirty-six hours the liver diminished in size one and a half inches all around. Six days after the first abscess pointed and emptied. In three days more the second abscess likewise emptied, and on the thirty-eighth day the patient returned home—a distance of one hundred and twenty-eight miles—with no bad symptoms.

In regard to pulmonary phlebotomy, Dr. Harley fully recognizes the difficulties attendant upon it. He quotes the plan adopted by Dr. Simpson, namely, that after the withdrawal of twelve ounces of blood the canula is to be held in situ, with the finger over the end to permit a clot to form, and then it is to be slowly withdrawn. Trifling hemoptysis follows the operation.

Dr. Harley is confident that visceral phlebotomy is a therepeutic measure which is bound to become more popular, and he dreads no censure in boldly recommending the use of the operation on every suitably situated organ when it is seriously congested, in preference to the application of leeches or cupping-glasses to the external parietes. The amount to be withdrawn may vary from a few ounces to a pint.

Dr. Harley gives the following directions as to the performance of the operation:

- 1. If it be deemed advisable to render the patient insensible, induce anæsthesia of the skin at the point selected for puncture by the local application of cocaine hydrochlorate.
- 2. Select the seat of puncture, and give such a direction to the trocar as will insure the point of its entrance into the organ, being brought into direct contact with the parietes by the application of pressure to them by a bandage after the completion of the operation, in order that the mouth of the wound in the organ may be thereby readily and effectually closed.
- 3 Let the trocar or aspiratory needles be of the size of a No. 2 or 3 catheter, and sufficiently long to penetrate deeply into the

organ pointed out, without there being any risk of entirely transfixing it.

- 4. Let the direction of the instrument be such as to avoid its puncturing any large blood-vessel.
- 5. When all these points have been attended to it will save the patient pain if the instrument be rapidly and at once thrust into the organ to the full depth it is intended to puncture.
- 6. If no blood flows, then slowly and by distinct degrees withdraw the canula, in the hope that a sufficiency of blood will ooze from the transfixed capillaries into the canal made in the organ by the instrument as will yield a free stream, and enough for the required purpose.
- 7. When the wished-for-amount of blood has been obtained, before withdrawing the canula altogether from the organ, but just before it leaves it, in order to obtain a blood-clot-cork to stop up the wound with, place the finger on the mouth of the canula, and keep it there until a clot has time to form, both in its interior and in the canal made in the organ itself by the instrument.
- 8. The next point is to get the clot in the canula to break off from that in the canal, so as to leave the latter behind, in order that by its presence there it may prevent any oozing of the blood from the organ after the withdrawal of the instrument. This is best done by giving a slight twist to the canula at the moment it is felt to leave the organ, when the resilience of the tissues of the organ will cause them to contract sufficiently firmly round the clot within to prevent its being drawn out along with the canula.
- 8. All that now remains to be done is to place an inch-sized square piece of adhesive plaster over the seat of the external puncture, and bind a pad over it, with a long flannel bandage sufficiently firm, so as to ensure the internal surface of the parietes being brought into close contact with the orifice of the wound in the organ, the more effectually to prevent the possibility of accidental internal hemorrhage taking place.

Dr. Harley concludes his article by the following words:

"All I have to add is that, if I am not very much mistaken, the day is not far distant when the old-fashioned, erroneous, as well as unsatisfactory, mode of withdrawing blood subcutaneously, will be totally abolished in all cases of inflammation and congestion of the internal organs having no circulating connection with the skin

and that the practice of visceral phlebotomy will become the recognized orthodox method of depletion in such cases."—*Therapeutic Gazette*, September 15, 1892.

#### THE RUBBER BULB AS AN AID IN INTESTINAL RESECTION.

Since the introduction of decalcified bone plates as aids in the operation for resection and anastymosis of the intestines, many suggestions have been advanced by surgeons in this country and abroad, looking to a simplification of the operation and a removal of the obstacles which have prevented good results.

The latest suggestion coming to our notice is that offered by Dr. Francis Reder in the International Journal of Surgery. The author recommends an inflated rubber bulb introduced into the lumen of the intestine, and thinks that a study of the instrument when in position will be convincing that, with its aid, the operation can be performed, not only more easily and neatly, but with less assistance and in less time than by ordinary methods. He uses bulbs of three sizes to suit the different diameters of the gut. They are all of the same length,  $4\frac{1}{3}$  inches, cylindrical in shape, their respective diameters being 1 inch, 2 inches and  $2\frac{1}{2}$  inches, and each allowing of one-half inch increase in diameter by inflation. They are made of thin rubber, about equal in thickness to "toyballoon" rubber, a tube 8 inches long and about the thickness of a small drainage-tube being attached to the center of each.

After the diseased portion of the gut, with the corresponding V-shaped portion of the mesentery has been cut away the partially inflated bulb is inserted into the ends of the gut to be united, so that the tube will be opposite the attachment of the mesentery. The two ends are brought into apposition at the middle of the bulb where the tube is attached, and if there is any tendency to slip off, they can be held together by two wire serre-fines, one applied near the attachment of the mesentery with the gut, and the other at a point directly opposite. The bulb is then inflated through the tube until the bowel tissues are put upon a gentle stretch, when the operation of suturing is proceeded with. Czerney sutures are

used to bring the mucosa into apposition, being so applied that the knot remains in the lumen of the gut. Lembert sutures are employed in suturing the scrous coat, and are about twice as numerous as the Czerney. The mesentery is sutured first, and then the gut, all except about a half-inch, corresponding to the position of the tube. At this point of the operation the tube is released and the air allowed to escape from the bulb. Care should be taken to remove any residual air by suction. The removal of the air permits the bulb to collapse sufficiently to permit easy removal through the half inch opening left in the gut, which is then closed up by two Czerney and four Lembert sutures. In the last Czerney suture the knot has to be imbedded in submucosa, it being impossible to apply it so that it can be left in the lumen.

The author claims, among the other advantages, that the inflated bulb overcomes the differences in calibre often present in the two ends of gut to be united, as it also overcomes, to a great extent, the eversion of the mucous coat. The time for a resection with the bulb and a skilful assistant, all preliminaries to the operation having been arranged, should be not less than fifteen nor more than thirty minutes.

#### CHLOROFORM NARCOSIS TREATED BY DIRECT IN-SUFFLATION IN THE INVERTED POSITION.

Dr. E. Q. Prince, in the Medical Record, records a case in which this treatment was successfully employed; it was an extreme case, which had resisted other measures ordinarily successful. The patient, a man of 28 years, was to be operated upon for a supposed mastoid abscess. Examination showed a heart murmur, but inasmuch as he had, a few weeks previously taken chloroform safely, no trouble was anticipated this time. However, a short time after the operation was begun, circulation and respiration were both suspended. Which function was suspended first was not known, but it was supposed to be the former.

The patient was suspended by the flexed knees from the author's shoulders and trotted around the room for some time, and Sylvester's method was practiced. He was then placed on the table to all

appearances dead, hemorrhage having ceased and the lost blood being of a very dark color. He was then taken on the shoulders of an assistant, as before, and trotted for about one minute. At this juncture it occurred to the author to use forced insufflation; so, kneeling down, he took a deep inspiration and forced the contents of his lungs into those of the patient by the direct mouth-tomouth method. This was continued about three minutes, with the gratifying result that the cyanosed condition of the lips gradually improved. At this time an examination was made, but there was no evidence of pulsation or voluntary respiration. However, after a further continuance of the insufflation they were rewarded by the first natural effort at respiration. The operation was finally completed under ether. In concluding, the author states that this is the sixth case of suspended functions that did not respond to either the Marshall-Hall or the Sylvester method, the first five having recovered under suspension. This is the first case not responding to the suspension method.

#### CALOMEL AS A DIURETIC.

In an article in the Ohio Medical Journal, on the above subject, Saul Nickles says that the use of calomel as a diuretic was revived by Jendrassik. Lately nearly all of the works on therapeutics state that calomel has been found to be a powerful diuretic in dropsy, but their description of the method of using were imperfect. Jendrassik, in a case of dropsy, gave calomel and jalap and found diuresis followed in two days, greatly relieving the patient. This led to other trials with equally good results. In a very severe case of cardiac dropsy digitalis failed to relieve; Jendrassik then gave calomel and jalap, of each 4 grains twice daily, 4 grains on second day, 2 grains on third day and 3 grains on fourth day.

The quantity of urine increased from thirty ounces to over ten pints, profuse diuresis continuing until dropsy disappeared.

Jendrassik then used it in 24 cases, each of which was relieved, polyuria beginning about the second or third day. He found that salivation was not liable to be produced. Jendrassik tried calomel in healthy individuals; stomatitis and salivation resulted, but no

increase of urine; Stintzing used calomel in 27 cases, of which 23 were dropsical. He concludes that calomel acts more powerfully than all other diuretics; its diuretic action is manifested slightly in patients without ædema, but in a very high degree in cases of dropsy.

The effects are found in cardiac dropsy, whether this be the consequence of valvular disease or cardiac degeneration. Ascites, caused by portal obstruction, and dropsy, caused by chronic parenchymatous nephritis, are less amenable to the action of calomel. The incidental effects of diarrhea, salivation and stomatitis may be prevented, or rendered harmless, by suitable prophylactic means. The best dosage recommended by Jendrassik is 3 grains daily, which should be continued at least three days. If dropsy does not disappear treatment may be resumed.

Nothnagel also tried calomel in numerous cases of dropsy, and found it to be very effective.

Opinions differ as to the mode of action of calomel. Jendrassik supposed that it increased the resorption of the dropsical fluid by the blood, and that calomel does not act like digitalis, by increasing the blood pressure.

Stintzing and some others hold that calomel acts directly upon the kidneys, because they found some increase of urine in patients not affected with dropsy. Cohnstein also holds this view.—Medical and Surgical Reporter.

[Many of our readers have doubtless experienced the non-action of the ordinary diuretics until free purgation was caused by a good dose of calomel. Any one who has tried it will vouch for the excellent diuretic power of the old familiar pill composed of one grain each of calomel, digitalis and squill.]

#### PROFESSOR BILLROTH'S JUBILEE.

The past few days have witnessed a series of festivals at Vienna in commemoration of the commencement of the teaching career of Professor Billroth at the above-mentioned school. The event, indeed, has been converted into a sort of Congress, which was inaugurated on the 8th inst. by the assembling of the former pupils

of this distinguished surgeon in order to testify their gratitude for the advantages they had derived from his instructions. On this occasion Professor Czerney, of Heidelberg, was deputed to present to Professor Billroth a volume containing a record of his principal surgical works, and entitled "Contribations to Surgery." In the evening of the same day a dinner was given to Professor Billroth, at which numerous congratulatory speeches were made. The jubilee extended to the 11th, on which day his friends and admirers assembled to listen to an address by Professor Albert. The commemoration has excited great enthusiasm in the medical world of the Austrian capital.—London Lancet.

[In this connection we acknowledge the receipt from Messrs. William Wood & Co. of a large photographic illustration of Prof. Billroth's surgical clinic in the Vienna Hospital. The patient has been anæsthetized, the several assistants are in their proper places, one being in the act of handing a scalpel to the great surgeon, who is standing in full view on the farther side of the subject. We will give this picture a conspicuous place upon our office wall, even if some other has to be displaced to accommodate it, and we thank our friends, Messrs Wood & Co., for their kind courtesy.]

#### ONE WAY OF INCREASING THE RETAIL DRUGGIST'S RECEIPTS.

While retail druggists are complaining of cutters and of their loss of margin in profits on handling patent medicines, many of them overlook a source of patronage the cultivation of which would add materially to their income.

There are numerous physicians to-day, buying their medicinal supplies from physicians' supply houses, who, with proper treatment, might be induced to patronize their local druggist. Do you do what you can to accommodate the doctor and make it to his interest to buy from you? There is not one doctor in a hundred but would prefer to buy his drugs in small quantities as he requires them, rather than place an order with a physician's supply house for a large amount. The doctor would rather invest fifty or seventy-

five cents in a small package than order \$25 or \$50 worth at a time from a supply house at a distance, if you would break stock packages and allow him a reasonable proportion of your discount. The physicians' supply houses are here to exterminate the retail druggist if they can. Why not retain your natural customer?

Do you try to win the confidence and coöperation of the doctor by refusing to advise people who come to you for medical advice, and suggesting that they apply to one of your doctor-customers? Probably not. Do you refill prescriptions on the patient's request, without orders from the physician? If you do, you make yourself a competitor of the doctor, and cannot expect his patronage. If you pretend to cater to him, and make every effort to cut his throat, you may expect the doctor of the future to do his own dispensing.

As a recent writer pertinently says: "Between the diminished prescription-trade and the low rates at which patent medicines are sold by these general stores, the druggist is verily in a predicament. There is but one true solution to the dilemma. The medical and pharmaceutical professions should be more intimately related, and should work hand-in-hand. The physician should not be a dispenser of drugs; he should be content with receiving compensation for his services. The pharmacist should be a compounder of prescriptions, and under no circumstances should he offer advice to the public in matters pertaining to the health of the individual.

"Let the pharmacist refuse to countenance quackery by abolishing from his establishment all patent medicines and advertising-matter pertaining to the traffic. At the same time let him respect the rights of the physician by refusing to refill any prescription unless authorized by the physician. The dealing in and recommending of patent medicines, counter-prescribing, and refilling of prescriptions are directly opposed to the rights and interests of the medical profession, and will ever be opposed by every honorable physician. Until the pharmacist learns to respect these rights he cannot expect to have the hearty sympathy and support of the physician. Let him assume the duties of a true and honorable pharmacist, and the physician will again give him the merited support.

"The medical profession refuses to countenance quackery in any of its phases; it refuses to associate with advertising physicians, and will never grant the compounder of its prescriptions a privilege which its own members will not themselves assume. Physicians and pharmacists 'cannot serve both God and mammon,' and must choose whom they will serve. The doctor must either be a physician or a quack. The druggist must either be a pharmacist or a quack."—Bulletin of Pharmacy.

#### BENZANILIDE.

Luigi Cantu (Rif. Med., August 2d, 1862) records the results of the administration of this drug in a number of patients suffering. from various disorders. The drug had already been tried to a certain extent by Cahn in the Children's Hospital at Strassburg, and the therapeutic effects were declared to be very similar to those of acetanilide and salicylanide Benzanilide has a chemical constitution closely allied to that of acetanilide, and is a white powder, melting at 161° C., and dissolving in 61 parts of cold, or 7 of hot alcohol. It is insoluble in water, and with difficulty dissolves in ether; it has a slightly caustic taste, but no marked odor. It was given by the author in the following cases: 5 of typhoid, 12 of rheumatism, 4 of pneumonia, 3 of neuritis, 3 of sciatica, 2 of malaria, 1 of chorea, and 1 of tetany. As regards the dose, the drug was at first given in the same doses as acetanilide, but this amount being insufficient, the quantity was increased first to 1 gramme, and finally to 2 grammes, at which amount it showed its full action. A daily dose of from 4 to 6 grammes was well borne, but symptoms of intolerance began to appear after several successive days' use. The drug was given in capsules. In febrile conditions the action on the temperature is very energetic, and seems greater in proportion to the elevation of temperature. The action begins from half an hour to an hour after the drug is taken, and the maximum effect is reached after four or five hours, when the temperature again begins to rise, so that, in ten or twelve hours, it has reached its original level. The respiration is not affected save that occasionally it is increased in frequency. On the other hand, the pulse becomes slower and softer, and its tension, as measured by the sphygmomanometer, shows marked diminution; this effect does not seem to be in proportion to the effect on the temperature. No disturbance of the digestive organs was observed in any of the cases in which the drug was given. The urine was not altered in quantity, density or reaction; its color was somewhat dark, approaching a greenish tint, the color increasing in intensity after exposure to light and air. With large doses the color sometimes became nearly black. This urine yields the reaction of para-amido-sulphuric acid. As regards its therapeutic effects, the drug seems to be a simple antipyretic, and to have little other influence on the course of a disease.—British Medical Journal.

#### THE RELATIVE VIRULENCE OF MICROBES FOUND IN WOUNDS WHICH HEAL BY FIRST INTENTION.

Budinger (Wien. klin. Woch, No. 22, 24, 25, 1892) describes some experiments undertaken in Billroth's clinic, in order to test the reliability of certain methods of wound treatment. As regards wounds healing by first intention, it is certain that any microbes that are found in them have come from the air, and have settled there during the operation. They have been able to resist even the floods of antiseptics often employed; they appear even to be capable of multiplying there. It is, in the author's opinion, practically impossible to talk of the treatment of wounds free from microbes, No method has been devised which will prevent the fall of microbes on to a wound during operation, or will kill them and prevent them from developing there. However, in the case of a clear wound, neither pathogenic nor non-pathogenic microbes can prevent it from healing by first intention. Now, are the microbes found under these circumstances—the pyogenic staphylococci-virulent or nonvirulent? The author's inoculations, made on his own forearm, show that each of the varieties commonly found under these circumstances (S. albus, S. aureus and S. citreus) is actually virulent, and there is no doubt that the so-called "traumatic fever," sometimes accompanying even "aseptic wounds," is due to the absorption of some of the above-named microbes. - Brit. Med. Jour.

#### CURRENT NOTES.

Col J. H. Morrow, a wealthy horse-trainer of Columbia, S. C., has been convicted of supplying the means of abortion to a young woman, 18 years old, whom he had seduced. He was sentenced to six years in the penitentiary. His counsel made application for a new trial, which was refused by the Judge, who believed him guilty, and thought the sentence a just one. His bail was placed at \$3,500, and it is thought he will furnish bail and leave the country.

WE have it as a positive fact, from a layman who knows, that when a man's tongue is unmanageable from a too free imbibition of the ardent, with a tendency to transform his s's into sh, it may be brought under control in a few minutes by the administration of a half ounce of sweet oil. However, this does not untangle his legs, but as a dram of chloride of ammonia is said to accomplish this, it might be that a combination of the two will prove equal to a shot of Keeley's mixture. Who knows? Try it, doctor.

Chloroform Accidents.—Dr. H. A Hare, 222 South Fifteenth street, Philadelphia, requests us to state that, having been asked to undertake a research at the expense of the Government of his Highness, the Nyzam of Hyderabad, India, with the object of reconciling the conflicting views concerning the action of chloroform, he is auxious to receive from American physicians and surgeons records of any cases where it was noticed that the heart stopped before respiration, or respiration before the heart. Notes concerning any such cases will be considered strictly confidential, provided the reporter states his desire that his name shall not be mentioned in the report of the research when it is finished; otherwise, due credit will be given for any information received.

The attention of physicians and surgeons who have in anticipation a visit to the World's Columbian Fair in Chicago, is again called to the Bureau of Information which will be established at Nos. 75 and 77 Wabash Avenue, through the liberality of Messrs. Charles Truax, Green & Co. This convenience is intended for physicians and surgeons (and their families) only, and it is hoped the visiting profession will make use of the advantages it will afford them. There will be, as has already been announced in a former

issue of the Journal, reading and writing rooms, cloak rooms, a post-office and banking department, where all facilities will be furnished for cashing and drawing money orders and checks; assistance will be given in purchasing tickets—railroad, theatre, exposition, etc.—legitimate charges will be guaranteed in all such incidentals as messenger boys and cab rates, and, in fact, Messis. Truax & Co. will spare no pains to make your visit pleasant. Interpreters will also be found in the building, and the whole thing is a voluntary offering, without charge.

THE CURATIVE ACTION OF HIGH TEMPERATURE ON WOUNDS. -The complete removal of tissue invaded by tubercle by means of instruments is in most cases a matter of difficulty, and the surgeon is obliged to supplement cutting by the application of caustics such as zinc chloride or of the thermo-cautery, but even then tuberculous nodules may be left and disappointment result. M. Félizet of Paris recently gave a trial to a blowpipe flame giving a temperature, as tested by the pyrometer, of 1500° to 1600° C. The blowpipe is fed with a mixture of one-third air and two-thirds petroleum. With this flame the morbid spots on the surface of the operation wound are "licked," so to speak, for a few seconds. The tissue immediately shrinks, the blood coagulates, but there is neither charring nor hæmorrhage. In a case of resection of the knee-joint, a forty seconds' contact of the flame suffices. M. Félizet has derived good results in thirty-eight cases, which comprised excision of the knee, hip and elbow-joints, and the treatment of tuberculous abscesses. M. Nélaton states that he operated on two cases of cancer of the os uteri, the operation consisting of scraping, followed by the application of the flame yielded by the gas cautery invented by his illustrious father. By this means recurrence was, in both instances, long delayed. M. Félizet reminds us that the thermo-cautery at dull red has a temperature of 700° C., and at white one of 1400° C. Charring of tissues occurs at these temperatures, which is not the case with his blowpipe flame at 1500 to 1600 C. M. Moty claims for the thermo-cautery at a white heat that held at a certain distance from a wound-surface it produces a kind of erection of the granulations and brings about a more rapid cicatrization. He believes that heat influences the vitality of the tissues and that the destruction of the germs which infest them is altogether a subsidiary process .- Paris Correspondent of London Lancet.

THE TREATMENT OF MYXCEDEMA. - A case of myxcedema is now under treatment the results of which will be watched with interest by the profession. The patient is a woman aged 40, who for nearly three years has been under treatment for myxædema. In every respect it is an extremely typical case: persistently subnormal temperature, general swelling of the integuments, dryness of skin, partial baldness, clumsiness of movement, slowness and thickness of speech, etc The patient was admitted to the Royal Free Hospital in July, under the care of Dr. Hector Mackenzie, for the third time, in order to be treated by hypodermic injections of thyroid juice. In consequence of the difficulty experienced in obtaining the latter Dr. Mackenzie was induced to try the effect of feeding the patient on fresh thyroid glands. The result has been a striking improvement. The myxædematous swelling has entirely disappeared, the temperature has become steadily normal, the skin moist and the speech natural. The patient says she feels as well as ever she did in her life. The change in her appearance is such that the existence of the disease would probably not suggest itself to anyone seeing her now for the first time. At first the thyroids of two sheep were given every day finely minced. This was probably more than was advisable, because a remarkable acceleration of the pulse ensued, which lasted until the thyroids were discontinued for a time. The importance of this method of treatment is obvious. In view of the recent observations on the advantage of the thyroid juice when given in the form of injections, this method would seem to constitute a distinct advance. It can be easily carried out and is free from risk, which cannot be said of the subcutaneous mode of treatment.—London Lancet.

SULPHATE OF DUBOISIN.—Dr. H. V. Hepperger (Valduna) has a dark yellow preparation of this drug, which is easily soluble in water, in the form of subcutaneous injections in different kinds of mental diseases. Fifty-two injections were made in 11 cases. The author gave a solution of 1-7 gr. sulphate of duboisin in  $2\frac{1}{2}$  drachms of water. From his experiments the following conclusions follow: (1) That duboisin sulphate is a fairly trustworthy sulphate, which, injected subcutaneously in doses of 1-70 to 1-50 gr. causes, in most cases, after from 10—20 minutes, a sedative effect, lasting many hours. (2) It is an efficacious hypnotic, which, when applied sub-

cutaneously in sleeplessness not accompanied by excitability, causes sleep even in a dose of 1-70 gr. When accompanied by excitability, it ought not be given to cause sleep in a dose under 1-70 gr. (3) The sedative and hypnotic action of the medicine begins in the first half hour. The sedative action lasts from 1 to 12 and 14 hours, the hypnotic action from 1—6 hours. (4) Duboisin sulphate can, in some cases, cause toxic effects in small doses (1-80 gr.), and it is to be recommended that on using it for the first time a dose of not more than 1-70 should be taken. (5) In a few cases the patients got accustomed to the medicine after from 3—4 injections, but if interrupted for 2—3 days this is not noticed.—Jahresbericht der Voralberger Irrenanstalt, Valduna, 1891.—Medical Chronicle.

NEW GRAPE SUGAR REACTION .- A new grape sugar reaction is reported by O. Rosenbach, in Centralbl. f. Klin. Med. If a solution of grape sugar or milk sugar is treated with a few drops of solution of soda and recently prepared sodium nitroprusside solution and heated to boiling, a deep brownish red or orange red coloration will appear, developing with slower or greater rapidity, according to the degree of concentration of the sugar solution. Ten per cent, of sugar is sufficient to produce a dark yellow color, strongly inclined to red. This reaction can be utilized for the detection of sugar in urine; but attention must be called to the fact that the red coloration produced is not the sugar reaction mentioned above, but is the kreatinin reaction of Wayl. Upon further warming the red coloration disappears, with the formation of a characteristic brownish red sugar color, which, upon the addition of sulphuric acid, slowly assumes a more or less azure blue-Pharmaceutical Record.

John L. Sullivan is now said to be a paralytic. By the long-continued alcoholic soaking to which his tissues have been subjected the connective tissue elements have become hypertrophied, the increased growth causing atrophy of the muscular fibrillæ. The magnificent development of muscle that won him so many victories has thus given place to a spurious hypertrophy, the bulk remaining, the consistency even increased, but the force has imperceptibly diminished, until he again exemplifies the aged simile of the oak of fair appearance, but rotten at the heart.—Times and Register.

MESSRS. LEA BROTHERS & Co. announce as nearly ready for issue "A Text-Book of Nervous and Mental Diseases," by Landon Carter Gray, M.D. The profession may reasonably look for an exceptionally excellent production from the pen of one of such acknowledged capabilities as Dr. Gray. We await the appearance of the book with interest.

A DIPHTHERIA EPIDEMIC CAUSED BY ICE.—The Washington newspapers report the singular origin of an outbreak of thirty-two cases of diphtheria, of which fifteen proved fatal, that occurred in a small locality in that city. The body of a child that had died of diphtheria was packed in ice for two days, and when the body was transferred to the coffin the undertaker threw the ice on the ground outside his shop. Three children were seen eating the ice, and in eight days presented acute symptoms of diphtheria and died in a few hours. In all, thirty-two cases of the disease were ascribed to the deposit of the ice on the ground.—X. Y. Medical Journal.

At the second annual meeting of the American Electro-Therapeutic Association, held in New York, October 4th, 5th and 6th, the following officers were elected for the ensuing year: President, Dr. Augustin H. Goelet, of New York; Vice-Presidents, Dr. William F. Hutchinson, of Providence, R. I.; Dr W. J. Herdman, of Ann Arbor, Michigan; Secretary, Dr. M. A. Cleaves, of New York; Treasurer, Dr. R. J. Nunn, of Savannah, Ga; Executive Committee, Dr. W. J. Morton, of New York; Dr. G. Betton Massey, of Philadelphia; Dr. Robert Newman, of New York; Dr. Charles R. Dickson, of Toronto, Canada; Dr. J. H. Kellogg, of Battle Creek, Michigan. The next meeting is to be held September 12th, 13th and 14th, 1893.

ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about \$180, will be made on July 14, 1893, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the Secretary of the College on or before

May 1, 1893. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within it the name and address of the author. It is a condition of competion that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the reward. The Alvarenga Prize for 1892 has been awarded to Dr. R. H. L. Bibb, of Saltillo, Mexico, for his essay entitled, "Observations on the Nature of Leprosy."

Dr. S. S Satchwell, one of the fathers of the Medical Society of the State of North Carolina, died at his residence in Burgaw, on Monday, November 7, 1892. It is too late for more than a simple announcement of his death in this issue, but a more extended notice will appear in our next.

#### READING NOTICES.

Happy and content is a home with "The Rochester;" a lamp with the light of the morning. For catalogue, write Rochester Lamp Co. New York.

The Rio Chemical Company, of St. Louis, if it had never done more than present to the profession its valuable Extract of Pinus Canadensis, would have placed the profession under a lasting obligation to it. There is no more healthful, stimulating and generally beneficial application that can be made to a diseased mucous membrane than this.

A Modern Method of Medication.—Among the many methods of administering medicaments, the soluble elastic gelatin capsule is growing to be one of the most popular.

There are many efficient but unpalatable medicaments which may be readily exhibited in this way, without offending the palate of the most sensitive patients, and capsules are much easier to swallow and more soluble than pills.

Few physicians are aware of the many medicaments that are now administered in this way. Among these one need only mention the following to indicate the wide application of this method of giving numerous drugs: Apiol, balsam fir, balsam Peru, cascara sagrada,

castor-oil, castor-oil and podophyllin, chaulmoogra oil, cod-liver oil, cod-liver oil and creasote, cod-liver oil and iodine, cod-liver oil and iodoform, cod-liver oil and iron, cod-liver oil and phosphorous, copaiba, copaiba and cubeb; copaiba, cubeb and buchu; copaiba, cubeb and iron; copaiba, cubeb and matico; copaiba, cubeb, matico and sandal; copaiba, cubeb and sandal; copaiba and iron; copaiba, cubeb and turpentine; copaiba and sandal; creasote (beechwood), 1 minim; eucalyptus oil; gurjun balsam; linseed oil; liquor sedans; male fern and kamala; nitroglycerin, 1-100 grain; oil of pennyroyal; pichi extract; salol; tar, purified; valerian oil; Warburg's tincture; wintergreen oil; wormseed oil; quinine muriate and sulphate.

Of extra sized elastic-filled gelatin capsules there are castor-oil,  $2\frac{1}{2}$  to 15 grammes; cod-liver oil,  $2\frac{1}{2}$  grammes; male fern and castor-oil; santonin and castor-oil.

Messrs. Parke, Davis & Co. were among the first to make this method popular, and will be pleased to afford physicians interested all desired information concerning this agreeable method of medication.

Europhen.—Among the new surgical dressings Europhen seems to have quietly taken an elevated position as a positive and complete substitute for iodoform. It seems probable from the recent investigations that we must rely upon some form or combination of iodine in order to secure a perfect local antisepsis. The reports tend to coincide as to two or three very considerable advantages possessed by Europhen. The chief of these lies in the fact that the iodine component of Europhen is given off slowly, thus presenting fresh, nascent iodine to the tissues, and maintaining the healing processes. A further advantage in this slow development of iodine is that it prevents the possibility of irritant or toxic action. This is why large depuded surfaces, like burns or scalds, may be fully covered with it, and not give rise to any untoward effect. Europhen, in fact, appears to be especially adapted to extensive lesions, since its covering power is five times greater than that of iodoform, while its odor, though faint, is sufficiently well characterized to neutralize the peculiarly disagreeable fragrance attached to all surgical dressings. We note that recent clinical articles in approval of Europhen in the dermatoses, traumatisms and ulcerations, as also in specific lesions, have been written by Drs Allen, Chappell, Shoemaker, Giles, Fernandez, Gilbert Eichler, and many others, who have extended the uses of Europhen to ophthalmology, gynecology and rhinology, as well as the needs of minor and general surgery.

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The success of Fellows' Syrup of Hypophosphites has tempted tentain persons to offer imitations of it for sale. Mr. Fellows, who has a mined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispersional instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisible that the Syrup should be dered in the original bottles; the distinguishing marks which the best and the wrappers surrounding them) bear, can then be examined, the genuineness—or otherwise—of the contents thereby proved.

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To mar the soul's serenest hour."

-MARK TWAIN.

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#### NORTH CAROLINA

#### MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
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### NORTH CAROLINA MEDICAL JOURNAL.

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#### ORIGINAL COMMUNICATIONS.

SYMPHYSIOTOMY, WITH THE REPORT OF AN OPERATION.

By Barton Cooke Hirst, M.D.

(Read before the Philadelphia County Medical Society, October 12, 1892.)

Symphysiotomy has as remarkable a history as any procedure in surgery. Suggested for the first time in the surgery published by Pineau in 1598, and first performed upon a living woman in 1777, the idea may be said to be three hundred years old, while its practical application dates back more than a century. From the year of the first operation until 1858 symphysiotomy was performed 85 times in different parts of the Continent of Europe and once in England with a mortality of 33 per cent. The frequency of the operation diminished after the first few years, until in 1858 it had practically died out. It was revived, however, in Italy in 1866, and

in the succeeding twenty years 70 operations were performed with a mortality of 24 per cent. Italy continued to be the exclusive field of the operation until a year ago, when it was again tried in Paris by Pinard, whose interest in it was aroused by a visit of Spinelli from Italy. Ten operations have since been performed in Paris, two in Dresden, and one in Strasburg. From January 1, 1886, there have been 52 operations with only a single death, due to septic infection before the operation was undertaken. Twenty-three symphysiotomies have been done already this year, and the last 34 women have all recovered.

We owe the introduction of symphysiotomy into this country to Dr. Robert P. Harris, who, as is well known, has long been interested in the subject, and at the recent meeting of the American Gynecological Society in Brooklyn read a paper tracing the development of the operation, showing by the most laboriously collected statistics the present brilliant results achieved by it, and demonstrating, by the description of typical cases, its utility in labors otherwise insuperably obstructed by a contracted pelvis.

Ten days after Dr. Harris's paper was read, on September 30th, the first operation in this country was performed by Dr. Charles Jewett, in Brooklyn. Three days later it was again performed at the Maternity Pavilion of the University Hospital in this city.

The position of symphysiotomy is now established beyond a doubt. Its modern revival I believe to be the most important advance in obstetric surgery since the general adoption of abdominal section for the treatment of early extra-uterine pregnancy. It is applicable in contracted pelves with a conjugate over 67 mm., and therefore, should be the method employed in almost all cases of the kind in this country, for a greater contraction of the pelvis is rarely seen among us. It should, moreover, almost entirely displace the Cesarean section, with his brilliant record in that field.

There is and will be for some time, perhaps, an objection to the operation from those who have no experience with it, on the ground that sufficient space cannot be thus gained. In answer to this objection is the fact that the pubic bones may gape 7 cm. after their separation, and the statement of Morisani, that the conjugate is thereby increased from 1.3 to 1.5 cm. But an absolutely conclusive answer is furnished by the subjoined clinical records of some typical cases.

Leopold's First Case.—A dwarf, 135 cm. tall, with the following pelvic measurements: Sp. il., 22 cm.; cr. il., 24 cm.; conj. ex., 17½ cm.; conj. diag., 8¾ cm.; conj. vera, 6¾ cm. She had been delivered thrice previously, twice of dead children, once by the induction of premature labor. After a labor of seven hours and twenty minutes, ushered in by rupture of the membranes, symphysiotomy was performed with the head above the brim. In ten minutes the child was extracted with forceps. The head was of normal size (transverse, 9¾, 8¼; circ., 34).

Leopold's Second Case.—A woman, delivered once before by craniotomy. The pelvic measurements were as follows: Sp. il., 22; cr. il., 25; tr., 30½. conj., ext., 16; conj. diag., 8½; conj. vera, 6¾. Labor began in the evening; membranes ruptured seven hours later; operation three hours later, with head above the brim. Extraction of the child in ten minutes with forceps. The head had a circumference of 35½ cm.

Porak's Case.—A primipara with rhachitic pelvis, conjugata diagonalis being 9.6 cm., and pelvis presenting some asymmetry, very likely from scoliosis. Labor began on June 10th. About twelve hours later the membranes ruptured, and from eight to ten hours afterward the os was completely dilated. The head rested above the brim of the pelvis. Forceps was applied, but all efforts to engage and extract the head failed. The symphysis was opened, and the head extracted "with the greatest ease" by forceps. Recovery.

Freund's Case.—A woman, in labor six days; water drained off for two days. After opening the symphysis the head was delivered in fifteen minutes without instruments. There were two previous deliveries, one of a dead and one of a living child. The pelvic measurements were: Sp. il., 24½; cr. il., 27; tr., 31; conj. ext., 18½; conj. diag., 10 cm.; conj. vera, 8¼. The child's head after birth was found unusually large and hard. B. T., 10 cm.; B. P. 11 cm.; F. O., 12 cm.; M. O., 14 cm.; S. B., 10 cm. Circumference, O. F., 37 cm. Recovery.

Jewett's Case.—The first symphysiotomy in America, performed by Dr. Charles Jewett, of Brooklyn, September 30, 1892. Woman, a native American, primipara, fell in labor September 30, 1 o'clock, a. m.; at 10 a. m. the occiput appeared at the vulva, but was held fast by an approximation of the ischiac tuberosities, reducing the bisischiac diameter to three inches. Nine hours later Dr. Jewett

first saw the patient. The forceps had been vigorously used in vain. Symphysiotomy was performed two and one-half hours later, or eleven and one-half hours after the impaction of the head at the outlet. Delivery was effected by supra-pubic pressure and by shelling the head out with the fingers in the rectum. The woman is now in good condition, but unfortunately the child died twenty-four hours after birth from the compression to which the skull had been subjected during its long impaction in the pelvis.

The University Maternity Case.—A German woman, aged 19 years, pregnant for the first time, was admitted to the University Maternity September 24th. The examination by the resident physician and the students showed the child to be presenting by the head, the back to the right. The pelvic measurements were: Sp. il., 25 cm.; cr. il., 27 cm.; tr., 30½ cm; conj. ex., 18 cm.

The internal examination made by myself just before operation showed the conjugata diagonalis to be 9\frac{1}{2} cm.; conj. vera, 7\frac{3}{4} cm. The girl fell in labor Saturday morning, October 1st. The pains, recurring all day, on Sunday became very vigorous. On Monday morning, when my attention was first called to the case, the contraction-ring was high, the uterus stood almost straight out from the body, and the child's head was movable above the superior strait. The membranes were unruptured. By no justifiable degree of force could the head be made to enter the pelvis. The fetal heart-sounds were good. It was evidently, therefore, a choice of Cesarean section, craniotomy, or symphysiotomy. The last was done with the assistance of Dr. R. C. Norris and the valuable advice of Dr. R. P. Harris, who kindly consented to be present. The child was delivered with forceps in one hour and four minutes from the time the operation was begun. I purposely took my time, for the os was only the size of a dollar, and was very rigid, so that a more rapid extraction would have seriously injured the cervix. Head measurements: B. T., 7½; B. P., 9; F. O., 12; M. O., 13½; circ., 34. Mother and child are well.

The technique of symphysiotomy is simple and easy. After thoroughly cleansing the field of operation and disinfecting the vagina as well, a short vertical incision is made on the abdominal wall, reaching to about three-quarters of an inch above the symphysis. The attachments of the recti-muscles are severed just sufficiently to admit one finger. The forefinger of the left hand is

passed under the symphysis, and upon this as a guide the enrved knife of Galbiati is inserted until its beak projects under and in front of the symphysis. The joint is then cut upward and ontward. To avoid injury to the urethra, a metal catheter is inserted and pressed by an assistant downward and a little to the right, while the knife is placed a little to the left; but with Galbiati's knife I should think that there is little likelihood of cutting the urethra or the plexus of veins in its neighborhood. I at first thought that an ordmary probe-pointed, curved bistoury would serve my purposs well enough, but I quickly laid it aside, and was glad to avail myself of Galbiati's knife, which I happened to possess—at the time one of the three, I believe, in the country.

As soon as the joint has been severed the wound should be covered with iodoform gauze, and then the child extracted with forceps, or allowed to be delivered naturally, as seems best in the individual case. I should, I think, almost always prefer the forceps. It is well to have the trochanters supported by assistants during the passage of the child through the pelvis, so that the sacro-iliac joints shall not be injured.

As soon as the delivery is completed the wound is sewed up, the lowest stitch, if desired, passing through the top of the symphysis. How the whole symphysis can be stitched up, as Leopold claims to have done, I do not understand. After closing the wound and dressing it, rubber adhesive strips are placed around the hips and the lower abdomen, and a tight binder applied. The symphysis unites surprisingly soon, and three weeks after the operation the patient can walk as firmly and as well as ever.

There is only one disturbing thought in connection with the introduction in this country of an operation destined to do so much good. The charge of superficiality lies with some justice against us. We are too ready to reach out toward the top without a sufficient basis of solid preparation, and I fear that symphysiotomy may be undertaken by many who cannot correctly measure a pelvis and who have not the experience to decide whether a head can pass through the pelvis in which it is about to enter or in which it is engaged. There is consolation, however, in the reflection that if symphysiotomy should be done needlessly, the results are not likely to be so disastrous as in the case of Cesarean section, which, to my

knowledge, was done several times unnecessarily during the excitement produced among medical men by the improved results of the Sänger operation.

#### INSANITY AMONG THE NEGROES.

By A. B. PIERCE, M.D., Weldon, N. C.

In looking over the Bulletin of the North Carolina Board of Health for August, I find in the report of Dr. S. S. Satchwell, of Pender county, the following language: "Insanity among the negroes has assumed the form, almost, of an epidemic." Having had some experience on the subject, I have thought proper to suggest some reflections for the consideration of the profession.

In the first place, "La Grippe" has had its influence as a factor in the disease. I am satisfied I have seen two cases, within the last two years, brought on by "La Grippe." Both cases occurred in women. In one case the duration was only for a few weeks, which yielded to the treatment of alteratives and sedatives—I mean mercury and the bromides, combined with the fluid extract of ergot. The other case was of longer duration, some six or eight months, but was only under treatment a few weeks, and yielded to the same treatment, both cases finally recovering perfectly.

Religious excitement, I find, is another cause of the prevalence of the disease among certain individuals, especially when complicated with derangement of the internal organs. Derangement of the liver and chylopoietic viscera in males who have been worn down by heavy responsibilities, the cares and perplexities of sustaining large families, have been a fruitful source of insanity, especially when existing in weak brains. I treated one case of a man of about 60 years of age, which might come under this head. I gave him the alteratives and bromides, with ergot, and he was perfectly restored in five or six weeks.

As Superintendent of Health of Halifax county for two years, I have had my attention directed to this subject, and I think much expense might be saved the State, and many cases might be treated at our county homes, by the expenditure of a little money by our

boards of county commissioners, in having many of such cases attended before they become confirmed.

I am satisfied I have relieved three or four cases within the last two years in my public and private practice, and I am further satisfied that many could be relieved at our county homes if our officers would make the proper provision for such cases, and it would involve but very little additional expense.

The puerperal condition is another source of mental derangement, complicated with cold and hunger incident to poverty and distress. At some future day I may enlarge on this subject, as it involves much thought for its successful solution.

TYPHOID FEVER AND ICE-CREAM.—That typhoid fever may be caused by infected ice is a fact well known to our readers. Now ice-cream is added to the list of the carriers of the typhoid bacillus. The Lancet for September 10th states that Dr. G. Turner has informed the London County Council that he has traced an outbreak of enteric fever to the distribution of infected ice-cream by Italian street yendors.—N. Y. Medical Journal.

THE DANGER OF ADMINISTERING CHLOROFORM IN THE PRES-ENCE OF A NAKED FLAME, -- Mr. Charles Martin has remarked frequently, when chloroform was administered, a dry, irritating, spasmodic cough, gradually becoming more severe; smarting of the eyes; a pungent odor, somewhat resembling that of chloride of lime, and accompanied by a stinging sensation in the nostrils, and a sense of oppression in the chest amounting to actual distress; not infrequently changes in the patient's condition which cause great anxiety; sometimes synchronous weakening of the cardiac and respiratory mechanisms; at other times embarrassed and stridulous respiration, cyanosis and weakened pulse; these symptoms necessitating the use of ammonia, nitrite of amyl, or artificial respiration. It is believed that two molecules of chloroform combine in the presence of a flame with one molecule of carbonic anhydride and one of oxygen to produce three molecules of carbonyl chloride and one of water. The former, being unstable, is decomposed into hydrochloric acid and carbonic anhydride. In this hydrochloric acid lies the explanation of the symptoms and of the fact that ammonia is of great value as a restorative. The conclusion is that the operating-room should be heated by hot-water pipes, lighted by electricity, and should be large and well ventilated .- Birmingham Medical Review.

#### SELECTED PAPERS.

A NEW OPERATION FOR PARALYTIC TALIPES VAL-GUS, AND THE ENUNCIATION OF A NEW SURGICAL PRINCIPLE.

By B. F. PARRISH, M.D.

In writing this article at the present time it is my object to present to the profession a principle of surgery which I believe to be entirely original, and one which I believe capable of producing very satisfactory results in a certain number of cases. The utility of the principle is naturally limited by the anatomical arrangement of the tissues involved. Heretofore the deformities resulting from complete paralysis of various museles have been those which have been the least amenable to treatment without the continuous use of some mechanical support. They have been the ones which have given the surgeon the most bother and trouble and the patient the least hope and satisfaction.

The greater number of such deformities result from anterior poliomyelitis or infantile paralysis. As a rule, a good number of the muscles which are thus paralyzed in infancy recover their power more or less completely after a longer or shorter time. In some instances the child recovers perfectly. Then, again, in some instances all the muscles which were originally affected remain absolutely paralyzed. But the rule is, as I have just stated, and this rule remains unchanged in spite of all the electricity, massage, etc., that the most skillful attendant can give.

The muscles of the lower limbs are those most frequently affected by this disease. The muscles of the leg are more frequently involved than those of the thigh. Of the leg muscles, the anterior and posterior tibials, the muscles of the calf, and the peroneals are, in the order named, I believe, the most frequently affected.

During last winter my attention was particularly drawn to such cases. In my own practice and in the private and hospital practice of Dr. Lewis A. Sayre and Dr. Reginald H. Sayre I was forcibly struck by the number of cases of paralytic talipes valgus in which the extensor proprius pollicis was unaffected. Exactly how often

this muscle escapes in such cases I am unable to say. My observations and researches lead me to believe that in not more than two or three per cent. of the cases where the anterior (ibial is paralyzed is the extensor longus pollicis also involved. As Dr. Sayre observes in his admirable book on "Orthopædic Surgery," the extensor pollicis is often so strong in these cases as to almost or completely disarticulate the bones of the great toe at the phalangeal joint.

In cases where the anterior tibial was completely paralyzed, or so near that it could not perform its function after careful and prolonged treatment by electricity, massage, etc., the idea occurred to me that the strong extensor pollicis might be able to bear part or all the burden of its weaker neighbor. Accordingly, I began a series of experiments on the cadaver to see if my theory could be put into practice.

After isolating both the anterior tibial and the extensor pollicis muscles, I placed the foot in the position of inversion and extension and sewed the shortened tendon of the first to the lengthened tendon of the latter. First I sewed the two tendons together above the annular ligament. Then, placing the foot in the position of extreme eversion, I pulled upon the belly of the extensor pollicis muscle, when the foot returned from its everted position, the arch was raised and the great toe was extended. After thoroughly satisfying myself with this experiment, I then, on another subject, sewed the two tendons together below the annular ligament, and repeated the experiment with equally satisfactory results. Each time after the extensor pollicis had done the duty of the anterior tibial it resumed its own function. Thus satisfied that my principle was correct, the next thing to be done was to put it into practice upon the living subject.

On May 15, 1892, the first operation was done, with the assistance of Dr. Lewis A. Sayre and Dr. Reginald II. Sayre The patient, May C., aged three years and ten months, had had infantile paralysis when eleven months old. At the time of operation both tibial muscles of the right leg were completely paralyzed, giving rise to talipes valgus. All the other muscles which had been involved had recovered. The foot could easily be put in the correct position. The extensor pollicis was moderately strong.

Under chloroform anæsthesia an incision was made over the space between the tendons of the anterior tibial and extensor pollicis

muscles, extending from the annular ligament three inches or three inches and a half upward. Both the tendons were found and isolated. The tendon sheaths were cut away and the foot was inverted and extended so as to shorten up the tendon of the anterior tibial and pull down the tendon of the extensor pollicis. The opposing tendon surfaces were then freshened with the knife and sewed together with a catgut suture for a space of an inch or more, and the wound was closed. The foot was then molded into the proper position and retained there by a plaster-of-Paris bandage, which was worn for a month. When the dressings were removed the wound was found perfectly healed and the foot in a much better position than before the operation. Since the operation I have been using electricity, massage, etc., loosening up the adhesions which naturally formed From time to time since the first appearance of the paralvsis the child has had recurring attacks of the same disease. Since the operation she has had one or two attacks. What will be the final outcome of the case I am unable to say at the present time. I hope, however, to report her case in full at a later date, together with the report of several other cases which I have under observation.

In some cases a better result may be obtained by cutting off the tendon of the extensor pollicis and sewing it on to the common extensor of the toes, and then cutting the anterior tibial tendon and uniting the proximal end of the extensor pollicis to the distal end of the anterior tibial, thereby allowing the extensor pollicis only the function of the anterior tibial muscle. In cases where the posterior tibial is also paralyzed it may be necessary to sew its tendon fast to the tendo Achillis. However, the important principle of grafting tendons and having a live muscle do the work of a dead one is that which I wish particularly to establish in this article. As I have said above, this live muscle may also do its own work in addition to that of its neighbor, or it may have its original function transferred to still another muscle.

Although the anatomical arrangement of the muscles concerned in paralytic talipes valgus probably affords the best opportunity for the employment of the principle, it may be advantageously used in various other deformities where other muscles are paralyzed.

Where the muscles of the calf are paralyzed, thus giving rise to paralytic talipes calcaneus, we may sew the tendo Achillis to the

tendon of the posterior tibial, provided that muscle is good and strong, or it may be attached to either the flexor longus pollicis or the flexor longus digitorum, with a reasonable hope of materially benefiting the patient. Should the common extensor of the toes alone be paralyzed, its tendons might be grafted to the extensor pollicis, to the anterior tibial, or to both. In other cases, too, the principle may be employed.

In any case, if the deformity is not readily reducible, it should be made so before any operation is done upon the tendons. If the tissues causing the deformity are only contracted, then stretch them until the deformity is thoroughly overcome. If the tissues are contracted, then reduce the deformity by cutting them. Be perfectly sure that the deformity is thoroughly reduced before you proceed further.

When I had done, upon the cadaver, the operation described above, the only doubt existing in my mind was whether the adhesions resulting from the traumatism done to the adjacent tissues would not be so strong that they could not be got rid of. I am now thoroughly convinced that these adhesions can be loosened by the proper use of electricity and manipulation to the parts. Of course it takes time for this part of the work. The result will surely compensate the surgeon for the time and trouble. At the same time the muscle which has double work to perform should be further developed so as to be equal to its task.

If, on the other hand, the adhesions resisted all efforts of the surgeon, and still stuck the tendons to the surrounding tissues, the arch of the foot would be maintained and the position of the foot improved. And I believe the patient would be able to walk fairly comfortably without the assistance of a brace. If my fellow practioners will employ the principle here laid down, I believe that thousands of patients who are now wearing braces or crutches may be relieved of their deformities and also of their artificial supports.—

New York Medical Journal.

FOR ITCHING, Dubrieuth (Med. and Surg. Reporter, September 10) recommends the following application:

### SOME PRACTICAL DIFFICULTIES ARISING IN THE DIAGNOSIS OF PHTHISIS PULMONALIS

By W. S. LAZARUS-BARLOW, M.B.Camb., M.R.C.P.

The importance of a correct diagnosis in this, the most common of the serious diseases which the profession is called upon to treat, is so great that it may not be amiss to consider some of the practical difficulties which lie in the path of medical men. I do not propose on this occasion to touch upon the treatment of these unfortunate patients. I leave that in abler hands than mine; but the value, if there be any, in the following remarks, arises from the fact that all of the difficulties I mention have arisen to myself, even in my short experience

If a patient come to a medical man with a history of having lost two stones in weight during four or five months, if he say that he had brought up a pint of frothy blood, that he sweated copiously at night, that he had a distressing cough and expectorated much thick, yellowish mucus, and that a near relative had died of phthisis. the fears of the medical man are naturally aroused. If on examination dulness be found over one or both upper lobes of the lung, extending downwards perhaps to the third rib or lower, with tubular, cavernous or amphoric breathing associated with many moist fairly large sounds, with increased vocal fremitus and vocal resonance, increased in the case of resonance to bronchophony or pectoriloguy, his fears are realized. The patient is suffering from phthisis and probably from very actively advancing phthisis. But such is not usually the form in which the disease is seen for the first time, and particularly it is not the form in which the general practitioner sees it for the first time. It is rather in one of the other two stages, the earliest or the later stage, though doubtless in a special hospital the typical form is seen only too often. Here I should like to mention the way in which I propose to regard the stages of phthisis. I shall speak (1) of incipient, (2) of advancing, and (3) of receding phthisis. This will eliminate the difficulty which otherwise arises from the use of the stages as (1) the stage in which tubercle is laid down, (2) the stage of excavation, and (3) the vomica condition, with the attendant paradoxes that the "last stage" of phthisis may be the most favorable to the patient and the

"first stage" the most dangerous. This division seems to me to be more nearly allied to the course of the disease and to afford a better explanation of the rarity of cures, as it brings so large a number of cases under the head of advancing phthisis. For the incipient stage is usually an advancing one, and while receding above the disease may be advancing below in the lung. But it is also useful as that upon which a prognosis can be most safely based, for the whole question of prognosis depends on whether, in a patient suffering trom phthisis, the disease, as a whole, is advancing or is receding in activity. As the incipient stage not only comes first in order of time, but also in order of importance and of difficulty, we will discuss the difficulties then arising in the diagnosis. The second or true advancing stage, where the disease, having once taken hold of the patient, proceeds by more or less rapid strides, I do not propose to enlarge upon, as it is by far the most easy of diagnosis, cases differing but little, and that chiefly in degree, from the typical case mentioned above. In the first place, then, it is important to recognize that in the very early incipient stage a patient may not-and, indeed, is very likely not to-have any symptoms that lead to a suspicion of lung mischief. He is run down, has perhaps some dyspepsia with nausea, and probably this dyspepsia is obstinate; he is tired and languid and seems to require merely judicious diet, tonic medicine and perhaps a sea trip. Now this train of symptoms is very common and particularly so in young women. It is very common, too, in early summer, after the strain of winter and spring; but it is just at this season of the year that incipient phthisis is particularly likely to begin. I wish to enforce the necessity of not allowing such a patient to leave the consultingroom without an extremely careful examination of the apices of her lungs. Many times, no doubt, we shall find that our suspicions have not been verified; but I am confident that the earliest signs of phthisis are to be found in cases of this kind rather than in any other. Cough, expectorations, hurried breathing, perspiration and hæmoptysis are conspicuous by their absence; but a careful examination may reveal a little dulness in the supra-scapular fossa, a slight roughness, harshness or waviness of breathing, particularly in expiration, perhaps a few clicks, not cleared up by deep inspiration or cough, and we shall congratulate ourselves on having 'avoided that greatest of errors-the overlooking of the prime cause

in the prominence of extraneous symptoms. I need not say that the importance of careful examination in such cases is essential to the advantageous employment of climatic treatment, and in no stage of phthisis is climatic treatment more advantageous. Perhaps we may not have time to examine for bacilli, but if we do we may be rewarded for our pains. I have notes of one case that occurred when I was house physician at the Brompton Hospital which illustrates this point very forcibly. The patient, a young girl of nineteen, had absolutely nothing the matter with her but some persistent dyspepsia, and to get sputum for examination it was necessary to make her cough. There was even then expectorated a little watery mucus alone, nothing similar to the ordinary phthisical sputum; but bacilli were present in large numbers, and within the three months of her stay signs appeared in the left apex. The fact that bacilli were discovered within the first week after her admission negatives the possibility of her having contracted the discase within the hospital.

We may now advance a little further. We have in early spring, or perhaps even in summer, a patient who has persistent slight cough, with slight glairy expectoration, which has lasted through the winter and has got a little worse; perhaps some lassitude and maybe a phthisical family history. Is the patient the subject of incipient phthisis? To my mind this all-important question is most difficult to solve. Many persons show a liability to cold and their catarrhs go on to a bronchial catarrh. It is particularly in the upper lobes that this bronchial catarrh is likely to persist for some time, and it is especially under the conditions of a prolonged bronchial catarrh that tubercle is likely to be deposited. How are we to determine whether the patient is suffering from a mere bronchial catarrh or from early phthisis? Frankly I confess that I cannot do so with certainty; nothing but time will show with absolute certainty. But there are some indications that may give one or other of these diagnoses more probability. In such a case it is of especial importance that the bodily temperature be taken regularly, and not only night and morning, when it will very likely prove to be normal, but especially in the middle of the afternoon. If the temperature rises in the afternoon from 2 to 5, but is not elevated above the normal night temperature in the evening, or only slightly, I believe the probabilities are greatly in favor of the tuberculous

condition. Next we should notice the effect of causing the patient to cough while we are auscultating. The long inspiration following the expiratory effort of coughing will very possibly clear up, to a large extent, the sticky râles, or the clicks, which in such a patient are heard during ordinary breathing. If, after repeated cough with subsequent deep inspiration, and after several auscultations, these clicks remain, the probability of phthisis is increased. Then there is help in the question as to whether the conditions of the two lungs are similar. If there is no dulness, if the moist sounds may be heard equally low on both sides, if the degree to which they are heard varies from one day to another, and if an occasional click may be heard at the bases, then the probability is in favor of bron chial catarrh. If the sounds are not heard equally low, and particularly if the left apex be more involved, there is increased fear of the condition being phthisis. The question of time will usually clear up the difficulties in these cases, and it is important not to let a patient who has had this condition in early summer enter upon the next winter without carefully arriving at a definite conclusion as to the actual condition of the chest. If, when the patient is examined in autumn, nothing is found, the mystery has solved itself; if the same condition remains, or has advanced, the probability is increased that he is suffering from slowly advancing early phthisis, and by this time other symptoms will probably have supervened, converting the diagnosis from a comparatively doubtful to a comparatively certain one. Nevertheless, I do not ignore the fact that a bronchial catarrh may creep on. At any rate, if we thus exercise caution and take pains over the diagnosis, we shall have nothing to reproach ourselves with in case the more serious condition ultimately manifests itself. We shall in the meantime have given the patient the best chance of escaping that tuberculous disease, and shall have put him under those conditions which militate most against its rapid advance. Such considerations are amply sufficient to compensate us for the extra trouble we have taken in arriving at a diagnosis.

We now come to a very different class of cases, one in which the diagnosis is no less difficult, but which cannot alter our treatment to any considerable extent, though the prognosis may be materially modified. An example of this class is very vividly before my mind, as it was one of the cases given me in my examination by the Censors' Board of the College of Physicians. I will briefly run

over the chief points. A man in the prime of life was admitted to hospital with acute pneumonia; the case never had a definite crisis, but went on for about two months, at the end of which time his condition was as follows: Dulness, with all the signs of fluid in the lower axilla and at the base on the right side, with a few crepitations throughout the lung; temperature irregularly raised, pulse rapid and copious perspirations. It was evident that pleural effusion had been added to the pneumonia, but the question was whether tuberculous mischief was not, after all, underlying the whole. Now the effusion at the right base raised the tone on percussion of the upper lobe, though it was by no means of the Skoda type, and thus abolished a means of comparison with the left upper lobe. The onset of the pleurisy was definite, with rigor and pain. But the onset of a tuberculous pleurisy is most commonly insidious and pain is not a marked symptom. The condition of the patient was quite explicable on either of the three hypotheses: (1) unresolved pneumonia, (2) empyema, and (3) phthisis being laid down on an unresolved pneumonia. There was no tuberculous family history, and yet the man looked of a tuberculous diathesis and his finger-ends were clubbed. He had no previous illness, no history whatever of cough or wasting; he expectorated much frothy mucus. And yet, in spite of all, there was in my own mind, from the first, no doubt-and I may add that the Censor examining also fully concurred in my view-that the case was tuberculous at bottom. Upon what could that diagnosis be upheld in the face of so many contradictory signs? In the first place, there was some harsh breathing at the left apex, and this side was duller on percussion than the right, though I admit the abnormal condition of the right. lung gave no satisfactory standard of comparison. Then, next the finger ends were clubbed. I do not know how long it takes for obstruction to the pulmonary blood-supply to exist before clubbing is present, but it appeared to me that two months was long enough. Thirdly, the peculiar hopefulness of phthisical patients was present here, and this, with the transparent skin and pearly sclerotic, together with the fact that now, two months after admission, his lung condition was not cleared up, but actually more obscure than ever, led me to the conclusion that phthisis was the disease which would later on, by rapid strides, infiltrate and perhaps excavate the lungs on both sides, but particularly the right; in short, that tubercles were being laid down throughout the area of an unresolved pneumonia. Here was a case where discovery of the bacillus would have been of i estimable advantage to the diagnosis; but I was assured that examinations of the sputum had been repeatedly made without success.

Closely allied to the above case are those somewhat rare cases of apical pneumonia. Thy occur more frequently in children, are accompanied with much more pronou ced symptoms, and are long in resolving. One must not forget that though tubercle going on to excavation is far less common amongst young children than amongst adolescents and adults, yet that it is not unfrequently met with. If in a case of apical pneumonia in a strumous child we can get but a very poor history of onset, I do not myself see, unless delirium be marked, how we can differentiate the two diseases. Dulness, tubular breathing, bronchoph ny, and even pectoriloguv. are present in both, and the onset of phthisis in children is often so rapid that the mode of onset in any particular case may help us but little. I think here in many cases, though we must recognize the condition as extremely severe, we are unable to give a definite diagnosis. The case is different from broncho-pneumonia in children; moist sounds and dulness are very widespread, but they are not, as a rule, confined to the apex, being heard in patches all over the chest on both sides, and particularly below the angle of the scapulæ. In children cases of broncho-pneumonia ought not usually to cause any difficulty. But it is different in adults. When broncho-pneumonia is present it may lead to a condition very similar to than occurring in basal phthisis. True phthisical eavities also rarely occur at the bases of the lung, and may be confounded with bronchiectatic cavities. A diagnosis may usually be effected by considering other symptoms—such as the deteriorated condition of health dependent upon some long-standing acute illness which exhausted the vital forces, leading to broncho pneumonia and the peculiar mode of expectoration with the characteristic odor of the sputum in bronchiectasis. In a short time influenza, leaving broncho-pneumonia, may further increase our difficulties in diagnosis. With regard to morbid growths in the lungs, I can speak with less confidence, as I have met with but few, and those such in which the diagnosis was not difficult, and in any case not to be confounded with phthisis. Primary growths in the lung are very rare, and

generally the organ is invaded from the mediastinum, and presents many points of contrast to what occurs in phthisis. I can nevertheless easily imagine that a localized, easily softening growth might be very difficult of recognition.

Having now briefly pointed out the main conditions found in the lungs which may considerably affect our diagnosis of phthisis, I should like to refer to a few of the more important symptoms which, though often of extreme diagnostic importance in phthisis, are nevertheless not pathognomonic. Firstly, I will deal with hæmoptysis. Dr Burney Yeo lately said that often hæmoptysis was the most favorable condition towards the cure of phthisis, as it made the patient take adequate precautions. That is no doubt true, but we must primarily be certain that the hæmoptysis is of tuberculous origin. I need not speak of the importance of deciding whether the case be one of hæmoptysis or hæmatemesis. I assume that it is undoubted hemoptysis. Now in middle-aged and elderly persons hæmoptysis is not so simple a matter as it seems. Most probably, I grant, it comes from a cavity with vessels running in its walls that, being unsupported on one side, have become aneurysmal. But there are two other questions to be disposed of: (1) Does the hæmoptysis depend upon the same causes as lead to cerebral hæmorrhage and epistaxis in the subjects of chronic renal disease? and (2) Does the hæmoptysis arise, as Sir Andrew Clark has shown it sometimes does, in a person of arthritic tendency and quite apart from either renal changes or phthisis? Now renal hæmoptysis, if I may so call it, may be easily diagnosed by the state of tension of the pulse, and above all by deciding by gentle percussion the extent of the cardiac area. The size of the heart will settle the question. If dulness extend up to the upper border of the third rib and bevond the middle of the sternum, I believe phthisis may practically be put out of the question; for the heart in phthisical patients in the immense majority of cases, is below the normal weight and size, while in chronic renal disease, as is well known, it is generally hypertrophied. So far I have seen only one case of Sir Andrew Clark's arthritic hemoptysis, and in that the amount of blood expectorated was considerable and lasted over several days; the patient was about fifty years of age; there was no renal disease and absolutely no ground for assuming phthisis after many most careful examinations. On the other hand, the patient exactly answered to

the type of case Sir Andrew Clark has described. I must confess, though, that at first I regarded the blood as coming from an undiscovered phthisical cavity. Secondly, wasting may mislead us. There are few diseases in which wasting is so great or so rapid as in phthisis, and yet I remember one case I saw early in 1890 in which most marked wasting took place as the result of mere inanition in a patient suffering from hysteria; she was fifteen years of age and was reported to have maintained life on half a pound of grapes and some raspberry jam for a period of three months. That fact, aided by the knowledge that she was regarded as a marvel in the small village where she lived, caused me to doubt the diagnosis of phthisis publicly given out by the medical man in attendance I examined her most carefully, found no tuberculous mischief, but my provisional diagnosis of hysteria was confirmed in a number of ways that need not now be recapitulated. Removal from the surroundings, strict moral treatment combined with forced feeding and massage, produced in a month so considerable a change in the patient's physical condition that I had great trouble to protect her from the unkind remarks of her neighbors, who had previously been so loud in their expressions of compassion. If she had had a slight "bronchial catarrh" at the same time I should not have felt so certain of my diagnosis. Thirdly, as regards cough and expectoration. It is necessary to remember that cough need by no means be caused by a lung condition. Irritability of the fauces, a pendulous uvula, any irritation about the larynx or in the ear may cause it, and when combined with some expectoration, as it usually is, and of lengthened duration, any of these causes may lead to an unfounded suspicion that phthisis is incipient. The granular condition of the pharynx common in cigarette smokers is a typical example of this. The cough and expectoration will last throughout a summer and give rise to alarm. Whenever, therefore, cough and expectoration are present and chest symptoms are absent or of very small extent, we must not assume the existence of phthisis until we have decided that the throat cannot possibly or sufficiently account for them. There must be a cause for them, I grant, but with patience it will be found, and possibly not in the lungs; while it is as satisfactory to find them dependent upon a remediable throat condition, for example, as it is unsatisfactory not to refer them to a lung condition upon which, notwithstanding the absence of chest

signs, they may nevertheless depend. With regard to the expectoration, some slight reference is necessary. The sputum of phthisis, though typically nummulated, is not always so. Many cases, and particularly those in an early stage, produce only "bronchitie", sputum, and yet bacilli may be found in quantities. This was the character of the sputum in the first two cases I have mentioned above. Next you will find some eases of bronchiectasis and of chronic bronchitis in which the sputum is typically nummulated. with these cases one word of cantion is necessary. Cases of chronic bronchitis are not always uncomplicated and often with them coexists an old fibroid phthisis; it is very necessary to inquire for a history of phthisis in early years before one concludes with certainty that the nummulated sputum in an apparently simple case of chronic bronchitis does not come from an old much-contracted cavity. Fourthly, hectic temperatures and sweating are not peculiar to phthisis: I remember at least one case of empyema where such a mistake was made. Remember, also, that apical emphysema may surround and mask an old nodule of tubercle. The importance of searching for underlying quiescent phthisis in chronic bronchitis and emphysema is great on account of the tendency such lesions have to smoulder on and some time or other burst into active growth. Lastly, I should like to mention two small points of practical value in the diagnosis of a cavity, and the first is that, in examining a patient for pectoriloquy or whispering pectoriloquy, it is advisable to make him read from a book rather than say the familiar "one, two, three," or "ninety-nine." If, in taking care that the unoccupied ear does not receive the sounds we are able by means of the auscultating ear to understand the words whispered, the diagnosis of a cavity may be absolute, but when the words are familiar, we are apt to think we hear more than we actually do hear. The second point is that the character of the cough is important; an impulsive cough, seeming to rush up the stethescope, may be heard when pectrilogny is not obtainable, and, I believe, is of extreme value in diagnosis. Such a condition I have noticed in cases of receding or fi rotic phthisis in which a cavity is becoming contracted. As may be easily understood, it is a particularly valuable sign from a prognostic as well as a diagnostic point of view .-London Lancet.

## THE KRASKE METHOD OF EXTIRPATION OF THE RECTUM

By Joseph B. Bacon, M.D., Professor of Rectal Surgery in the Post-Graduate Medical School and Hospital, and Surgeon to the Chicago Charity Hospital, the Columbia Free Dispensary, etc., etc.

Gentlemen:—In a recent lecture I gave you a talk upon the method of extirpating non-malignant strictures of the rectum, when other means of treatment had failed. To-day I have the pleasure of showing you the result of extirpation of the rectum and anus for carcinoma by the Kraske method.

The patient, Mr. W., aged 34, druggist, married for many years, of a constipated habit, first noticed trouble in his rectum October, 1891, when at stool a severe hemorrhage occurred, but aftewards nothing troubled him for about three months, when, after taking a strong cathartic in December, he was taken with a profuse hemorrhage from the bowel.

From the date of the second hemorrhage he began to have obscure pains in his back, slimy discharge from his bowel, streaked with blood, and shooting pains about the anus and a more obstinate constipation requiring larger doses of laxatives.

These symptoms all gradually grew more annoying until he thought best to consult a physician for relief in March, 1892, for what he considered hemorrhoids.

His physician examined him and told him he had a stricture of the rectum that was probably malignant, and advised him to consult a surgeon. I examined him for the first time about the middle of April, and found a stricture of the rectum caused by a malignant growth, involving the sphincters and four mehes of the rectum, and only dilatable sufficient for my finger to explore the growth.

An immediate operation for the total extirpation of the auns and rectum was advised, at the same time assuring the patient that this relief would probably only prolong his life for from six months to two years.

After thinking the matter over for two weeks, he returned in a much worse condition, requesting that the operation be performed the third day of May, at Macomb, Illinois. There was impaction

of feces extending up above the sigmoid flexure, distending the abdomen, showing a serious tendency to total obstruction with fatal consequences.

Assisted by Drs. Stremmel, Lewis, Sikes, Knappenberger and Blaisdell, I removed the cancerous mass, including the anus and five inches of the rectum, after the method as first described by Kraske, of Germany, in 1885.

The operation was performed as follows:

After the patient was partially under the anesthetic (ether), I forced my index finger through the stricture, and, with the aid of an irrigator, succeeded in breaking up the hard, impacted fecal mass, and by repeated irrigations lasting for an hour, emptied the rectum and colon. I will here state that the complete evacuation of the colon, even at a great loss of time during anesthesia, is very necessary before operating, otherwise the necessary constipating of the bowels for several days after the amoutation of the gut will be, as a rule, impossible. The patient was now placed upon his right side and the perineal and sacral region carefully cleansed, and every means employed for an aseptic operation. An incision was made beginning at the third sacral vertebra and extending in the median line to the anus. The soft parts were dissected loose from the two lower sacral vertebræ and coccyx and below down to the rectum, and the left sacrosciatic ligament was detached from the sacrum. The coccyx was now removed and a chisel was used to cut away the left half of the sacral vertebræ, care being taken not to wound the third sacral nerve, it being the main support to the bladder. At this stage of the operation the rectum and cancerous mass was exposed and all bleeding vessels were carefully ligated.

Beginning now at the lower end of the wound, I dissected the mass away as follows: Inserting one blade of a large pair of curved scissors into the wound at a point near the anus, it was pushed laterally into the left ischio-rectal fossa and forward to near the median line, and the intervening tissue severed; a similar incision was made around the right side, thus completely encircling the anus, except at the median line near the urethra.

An assistant now inserted an urethral sound into the bladder, to be used as a guide in dissecting the tumor from the urethra and prevent its walls being wounded. The anus and lower end of the rectum now being freed from the surrounding tissue, a strong pair

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of vulsellum forceps were used to hold the tumor firmly and the levator muscles were cut away at a safe distance from the cancer. The peritoneal cavity was then opened and five inches of the rectum removed, leaving the seminal vesicles bare of bladder and small intestines exposed.

The rectum above the cancer, together with the lower end of the sigmoid was dissected loose, drawn down and firmly ligatured into the upper angle of the sacral wound by interrupted sutures of heavy silk, care being taken to have each suture catch up at least one-half inch of rectal tissue, sutures passing through the entire gut wall, to prevent their tearing out before union took place. All bleeding vessels were now ligated and sterilized hot water applied to the wound until capillary hemorrhage ceased. The lower end of the rectum was now packed with absorbent cotton to prevent any of its contents escaping into the wound.

Beginning now with long stripes of iodoform gauze, the whole pelvic wound was carefully packed from before backwards to prevent any fecal discharges entering the peritoneal cavity. This dressing was not changed until the end of five days (the bowels having been constipated by opiates): when the peritoneal cavity was found securely closed in with healthy granulations, and the wound was thus secure from any future infection from fecal discharges. Daily dressing of the wound was required for three weeks, when everything had granulated around the gut, and the patient was able to sit up in bed.

You will now notice that he is well nourished, has no pain, appetite good and there is no symptom of a return of the growth. He has just arrived in the city, kindly coming to present himself before the clinic, after traveling over two hundred miles. It is now four months after the operation. He has perfect continence when bowels are constipated, but of course incontinence when the fecces are of a diarrheal character.

You may notice here how firmly the gut is united with the tissues at the upper sacral end of the incision and how healthy the mucous membrane appears. As I pull aside the buttocks somewhat firmly, you see the bowel is filled with solid feces; this he removes daily by warm water irrigation, and completes his toilet with a large cotton pad. I shall have this man go to an instrument-maker and be fitted with a truss pad as invented by Hochenegg, and then he

can go about his work as usual. The age of this patient, thirty-four, is unusual for cancer, and well illustrates how necessary it is never to take a diagnosis for granted, but make a careful search for symptoms; had such been done for this man after the first hemorrhage, his chances for a permanent cure would have been much better.

Kraske's claims for this operation are:

- 1st. It enables one to remove tumors that are too high up for any other method and considered inoperable.
- 2d. It enables one to secure all the cut or torn blood-vessels with a certainty.
- 3d. Where disease is limited to tissue above sphincters, the disease can be cut away and the ends of the gut brought together again, and sphincters preserved with continence.

Some of the dangers in doing Kraske's operation are:

- 181 One must avoid wounding the urethra, seminal vesicles and bladder.
- 2d. In removing a part of the sacrum one must be sure that he does not destroy either of the third sacral nerves, as they mainly control the bladder, and cutting them will cause vesicle paralysis.
  - 3d. He must use care in order to avoid wounding the ureters.

If the ureter is severed, Dr Fred. Byron Robinson suggests that it may be turned into the rectum. But in his experiments upon dogs he found it generally resulted in a fistula, in which case the urine from each kidney can be examined, and if the kidney connected with the fistula is secreting the smallest amount of urine, it may later be extirpated.

Some of the difficulties in the performance of Kraske's operation may be overcome by carefully laying the rectum bare in making the posterior incision and then inserting the finger around the rectum above the splincters, and freeing it from the surrounding tissues above and below. This procedure will enable one to push away the ureters, seminal vesicles, bladder and urethra in many cases.

Those of you who are familiar with the German language will be well paid if you read the literature upon this method of operating and its results as published in the Arch f. Klin. Chir, Berlin, 1886, xxxiii, 563-573; Berlin Klin. Wochenschr, 1887, xxiv, 899-904; Verhandl-d-dents, Gesellschaft, f. Chirurgie, Berlin, 1885, xiv, 464-474.—North American Practitioner.

### EDITORIAL.

### THE NORTH CAROLINA MEDICAL JOURNAL.

**40NTHLY** JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

Province communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the Journal, by sending the address to this Office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to R. D. Jewetts M.D., P. O. Drawer 810, Wilmington, N. C.

# THE NORTH CAROLINA MEDICAL JOURNAL—ITS NEW MANAGEMENT.

With the January issue of this Journal its management will pass into the hands of new owners. The years that have marked its progress since 1875 have been checkered with an honest endeavor to make it the equal of the best monthlies in the United States, and with the many days of trial and vexation that must attend upon such new ventures. Those who have been its steadfast friends from the beginning will recollect that it appeared under the joint control of Drs. Thomas F. Wood and M. J. DeRosset. Both of these gentlemen were admirably fitted for the work they undertook, and the literary abilities they possessed and displayed secured for them an early recognition as competent editors. These were years

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of severe trial for the new enterprise, and doubts, made darker by the severity of the struggle, were only to be overcome by the determination that had fixed their purposes when the first issue was sent out. Dr. DeRosset only maintained an active interest in the JOURNAL for a year or two. But Dr. Wood had put his hand to the plough with no intention of giving up, no matter what labor it entailed. In fact, it is known to the writer that for a number of years so scant were the returns that he made good the unavoidable deficit from his own income outside of the JOURNAL. How he labored for its success, and how well he succeeded, is too well known to need recalling now. He earned what he desired and deserved—an enviable position as a journalist and man of letters, and the JOURNAL itself was in all literary matters the reflex of his cultured mind. Bed-ridden and disabled by suffering, Dr. Wood felt the need of help to keep alive the work he loved so well and had so strenuously promoted, and it was at his request that the present editor, with a strong feeling of incompetency, assumed control of the Journal during this long confinement. After his resumption of work and up to his death it was our delightful privilege to be his coadjutor, and in full face of this memory this trust, so flatteringly bestowed on us, is passed over to the new owners, and we bespeak for them a generous patronage and hearty good will, such as has made the latter years of the Journal so prosperous.

Under the new regime its conduct will be changed in a measure. It will depend, in part, for its literary features, upon a corps of editors who have consented to serve. Their names will be, to most of our readers, a sure promise of a continuance of the effort to keep this periodical up to its present standard, with a determination to improve its appearance and size. The following gentlemen have consented to serve as Associate Editors: Dr. Cornelius Kollock, of Cheraw, S. C.; Dr. H. T. Bahnson, of Salem, N. C.; Dr. R. S. Young, of Concord, N. C.; Dr. S. Westraf Battle, of Asheville, N. C.; Dr. Hunter McGuire, of Richmond, Va.; Dr. George G. Thomas, of Wilmington, N. C.

For the new management we bespeak a cordial welcome and hearty support. It is intended to make this the JOURNAL of the two Carolinas, and an earnest solicitation is made to the profession in both North and South Carolina and Georgia for such contribu-

tions to its columns as they may find it convenient to send. There will be no lack of zeal in pushing the work to its highest point, and it will deserve the patronage it now enjoys, and endeavor to sustain the character that has secured for it the place as the official organ of the North Carolina Medical Society.

It has been announced in the Journal with its former management that its subscription would be reduced to \$2.00 per annum after this number, and the new owners have issued circular letters to all subscribers to the same effect. With his thanks for all the tender appreciation and loving kindness that was shown him who was our friend and loved companion, and for the generous patience of our patrons, that has made this writer's connection with the Journal so pleasant, the present editor vacates his place with many wishes for a merry Christmas season for all of those who may read after him, hoping that, in return for the New Year's greetings the new managers will send out, there will be vouchsafed them a prosperous and happy course in their new work.

#### GOOD ROADS.

There is no body of men who are, or should be, more interested in the question of good roads than physicians. They are almost constantly riding or driving, and it is often a most important matter that they should make fast time, but which of them has not had occasion to use invectives against the shortsightedness that can see no profit in money spent to improve the roads. Have they not often had to restrict their pace to a slow walk on account of rough and miry or sandy roads, when they felt that the condition of their patients called urgently for haste on their part?

In our State it is the exception to find good roadways even in the cities. One of our progressive cities has recently appropriated a half million of dollars for the improvement of her streets, and, judging from the experience of those places which in the past have done likewise, she will be well repaid for her wisdom.

While the South is notorious for its poor roads, there is no section where good roads would pay a better profit on the investment necessary to establish and maintain them, for we are dependent on

agriculture for our prosperity, and this means an unlimited use of country roads for the marketing of our products. We must haul even longer distances than is necessary in the North, for our market towns are more scattered and railroads are fewer.

Col. Albert A. Pope has issued a circular to College Presidents, Railroad Presidents and others with a petition, which he asks them to sign and aid in getting others to sign it. This petition asks Congress to found in the City of Washington a Road Department similar to the Agricultural Department, for the purpose of promoting knowledge in the art of constructing and maintaining roads, and for a permanent exhibit there in which will be shown sections of roads illustrating various methods of construction and also the best road material and machinery.

We hope the time is not far distant when, through some means, we may be provided with a better system of roads. It will save an immense amount in time, horse-flesh and numerous other items, and so will make us wealthier, wiser and happier. We commend Col. Pope's effort to the attention of the doctors of North Carolina and the South, and ask them to sign the petition.

FALLACY OF CIRCUMSTANTIAL EVIDENCE.—In the October number of the Journal there appeared a paper from Dr. W. O. McDowell, as the Chairman of the Section on Obstetrics in the North Carolina Medical Society. Shortly after this issue was sent out we were greatly surprised by the receipt of a letter from Dr. McDowell stating that, while he would like to have written this paper, he would have to disclaim the authorship thereof, as he had not been able to prepare his report on account of sickness. By the same mail came a letter from Dr. C. M. Poole, Salisbury, N. C. stating that he was the author of the paper, and had read it before the Society six years since. This paper was found with other papers of the 1892 meeting of the Society in Dr. Wood's office, he being the Chairman of the Publication Committee at the time of his death. The paper had never been through the printer's hands, being perfectly clean and having the appearance of being recently written. There had been no other paper presented from this section, and there was no name upon this one to show the authorship. Considering these peculiar coincidences the mistake is not so unreasonable as it would otherwise appear. However, we offer our apologies, at the same time congratulating our readers on the appearance of this excellent paper so long overlooked.

DR. CHARLES A. L. REED, Secretary-General of the Pan-American Medical Congress, has issued the Preliminary Announcement, containing a history of the Congress, with the General Regulations to govern all Congresses, the Special Regulations of the First Congress, and a list of the General Officers. The Congress is to be held in Washington City on September 5th, 6th, 7th and 8th, 1893. The By-Laws provide for a Committee on Ways and Means, "whose duty it shall be to devise and execute methods by which the necessary expenses of the Congress may be defrayed." Dr. Reed states that the necessary expenses will be about \$5,000, and as there are less than nine months before the meeting, the Committee will have to put their shoulders to the wheel at once. One has only to scan this Announcement to realize the enormous task Dr. Reed has assumed, and we trust the different committees will vary the general rule, and not leave everything for the Secretary-General to do.

FIFTY-ONE METALS are now known to exist. Four hundred years ago only seven were known.—Mercantile and Financial Times.

The Lancet being challenged to pronounce upon the dietetic virtues of tripe, says while frequent experiments have proven that tripe stands high in the list of albuminous substances that are quickly acted on by the gastric juice and reduced to a state of solution, the art of the cook, whilst it makes it more savoury, causes it often to be an offence to the stomach. It concludes that, while tripe, as usually cooked, is an excellent dish for strong stomachs, it is, owing to the ingredients added to it, not always so suitable for persons of weak digestion as has been supposed.

BIOGRAPHICAL SKETCH OF DR. JAMES J. PHILLIPS, DECEASED, OF EDGECOMBE COUNTY, HONORARY MEMBER OF THIS SOCIETY AT THE TIME OF HIS DEATH

By S. S. SATCHWELL, M.D., of Burgaw, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

It was a frequent remark of the illustrious Dr. Valentine Mott, of New York City, himself the Napoleon of surgery in his day in this country, that he was afraid to meet a country physician in consultation. He said that necessity imposed upon country practitioners such habits of reading and study, independence of thought and self-reliance, that he not only found them well posted and abreast with the times, but able to give him information and to make to him valuable suggestions. He said that the average city physician was not the equal, in knowledge and skill, of the observant and well read country doctor. The city practitioner, he said, was accustomed to seek consultation in important cases from the usages of the profession and the customs of society, especially in relation to young city and town physicians. Not so in the country practitioner, who, in his habits of self-dependence, was unable to lean on others, but compelled, even in emergencies, to depend upon his own resources as a general thing. This, he contended, gave the country physician habits of investigation and study, a spirit of self-reliance and investigation, a breadth of view and mental dis cipline, and a readiness and skill to meet occasions of trial and peril and danger, which give boldness and pluck and success.

One of the ablest and most distinguished physicians and brightest ornaments of the medical profession of our State was that celebrated country practitioner, Dr. James J. Phillips, of Edgecombe. One of the earliest honorary members of this Society, it is meet that, in collecting and preserving our jewels, we should perpetuate his memory, his high abilities and his usefulness.

Dr. Phillips was born in Edgecombe county, March 12th, 1798, and died there April 10th, 1874. His father was likewise born there and died there. His grandfather came from England, and was one of the earliest settlers in our State. The father of our

subject was a man of means at one time of his life, but failed when his son James was 18 years of age. This compelled him to stop his studies, and hence he never had the benefit of a collegiate course. He entered the office, as a medical student, of Dr. Cullen Battle (father of General Battle, now of Newbern), and after studying medicine with him, took his course of medical lectures in Philadelphia. He settled in Edgecombe upon his return, and entered at once upon a large and lucrative practice, and remained there until the day of his death. His practice extended throughout Edgecombe into Nash, Wilson, Wayne, Halifax, and occasionally to remoter portions of the State.

He enjoyed public confidence to a rare degree, and his services were assiduously sought far and near, in all difficult and dangerous cases of medicine, obstetrics and surgery. He stood high with his neighboring professional brethren, who cherished for him the highest personal and professional regard, and considered themselves fortunate, at any time, in being thrown into social and professional intercourse with him, and felt themselves benefited by his consultations with them in difficult and dangerous cases. During these earlier days of his laborious practice there were scarcely any railroad facilities of travel, and he was compelled to make his professional visits in his own conveyances. He was a large man, and, when in his prime, was fine looking. Seldom do our eyes behold a more striking personage. As I know from personal observation and experience he would command attention and notice in any crowd he entered and at any time and place.

He was a great reader and always an indefatigable worker. All his life he held to the doctrine, and acted upon the maxim, that industry and energy are essential to success, and that life gives nothing to mortals without great labor. Fond of every department of knowledge and of all the natural sciences, he was especially fond of the science of medicine, and devoted every leisure hour to its study and investigation, and kept abreast at all times with its improvements, its discoveries and its progress. He had great fondness for geology and chemistry, and in his day no one in the State was better posted in this branch. He was learned, not alone in the science of medicine, but in agricultural chemistry. He was a scientific, practical and successful farmer, as so many of our best physicians are, and made money by farming as well as by the practice of

his profession. He was among the earliest, if not the first, physician and farmer of the State, who advocated and demanded that farmers should study and possess themselves of a knowledge of chemistry, that it might be applied to practical agriculture. This advocacy brought about an interesting discussion in 1857 between him and Professor Elisha Mitchell of cur State University. It attracted the attention of our leading agriculturists and physicians and other scientists of that day, and Dr. Phillips, as a plain, modest, devoted country physician, gained rich laurels for scientific research and a high order of mental endowments. The views and arguments of Dr. Phillips in this controversy gave a new impetus to the cultivation of the soil on scientific principles. This discussion was brought about in consequence of an address delivered by Dr Phillips before the Edgecombe Agricultural Society in 1852. It was the first address delivered before the first Agricultural Society in North Carolina. It combined, with other causes, in establishing him as a man of original powers and bold, independent thoughtable to impress himself-and he did impress himself, upon the times in which he lived. The criticisms and views consequent upon this able address and his discussion with Professor Mitchell, aroused the attention of leading citizens, especially of Edgecombe, and in practical and successful agriculture, brought Edgecombe to the front in farming. Often have I heard the Dancys, of Edgecombe. and the Hon. R. R. and J. L. Bridgers, of that county, speak in warm praise of Dr. Phillips as a pioneer man in that entire section of the State, as a leader of men and measures, both within and without the profession. As a man of high order of intellect and as a practitionsr of rare judgment and skill, and a gentleman in the No one knew him better and honored and full sense of the term loved him more than our late lamented, honored and useful member. Dr. William George Thomas, of Wilmington. He had the amplest opportunities of knowing Dr. Phillips while he (Dr. Thomas) practiced in Tarboro, and loved to dwell upon his race virtues and high character as a man, citizen and physician.

The high qualities of his head and heart, his superiority as a physician, were proverbial in his day. His loyalty to his friends, his great resolution and energy of character, his strict integrity and generous disposition, his readiness to aid poor and meritorious young men, struggling for success, his love of North Carolina and

his devotion to his country, were interwoven in his nature and were leading attributes of his strong character.

He thought for himself and acted for himself, as is the custom of our ablest and best men, and he thought strongly. He possessed directness of thought, and when occasion suggested spoke forcibly and in epigrammatic style. Like most men who think much and think deep, he did not talk much; but to intimate friends who approached him on subjects with which he was familiar, he was free, communicative, very interesting and instructive. An eminent physician said to me a few years ago that, though he was deaf, and in ordinary conversation did not well understand the human voice, Dr. Phillips could diagnose a case of disease quicker by merely looking at it than any medical man he had ever met. He had the capacity of judging correctly of men, whether he passed upon them as patients or as mere casual acquaintances in social life or public company, and this ready knowledge of human nature was of great benefit to him in the affairs of life.

He was a man of much prominence in his section of the State, and a physician of acknowledged eminence and distinction. He was a man of such high intellectual endowments, such freedom from deception and guile, such openhanded hospitality and frankness of manner, and withal so benevolent, generous and public-spirited, that he was honored and esteemed by all who knew him, and when good opinion was worth deserving or seeking. These sterling traits made him hosts of friends, who loved him while living and honored him in death. Such was the make-up of this useful and noble man and physician that he would have attained prominence in any community and eminence in any calling or occupation. Had he settled in some larger city as a medical practitioner, instead of clinging, as he did, with almost idolatrous affection, to North Carolina, he would have attained to shining eminence in the ranks of the feremost practitioners of any of our cities.

He was possessed of that mild dignity of appearance and manners, and yet boldness and decision—that spirit of enthusiasm and air of originality and self-confidence, and that independence and go-aheadativeness which impress men upon the communities in which they live, and make them natural-born leaders of men. He kept pace with the standard publications of the day, and, amid the interruptions and toils of an arduous and self-denying profession, kept his

taste gratified, his mind nourished and his spirit refreshed by habitual recurrence to these rich fountains of instruction and unalloyed pleasure.

Dr. Phillips was happily married to Miss Harnett A. Burt on the 23d of April, 1834. She was the daughter of Mr. William Burt, of Hilliardstown, Nash county, whomoved to Tennessee in 1840, and soon after died.

Fourteen children were the fruits of Dr. Phillips' marriage. Of these four died in infancy: Sallie T., the wife of that brave Confederate Colonel, F. M. Parker, still living in Halifax county, in this State; the Hon. Fred. Phillips, a leading citizen of Tarboro, who for a number of years adorned the bench as a Superior Court Judge of this State; Susan Sims, who intermarried with Mr. J. J. Battle, of Edgecombe county, and died in 1886; James J., who was killed in the last cavalry charge in Virginia, not having heard of the surrender, and who was only 19 years of age; Joseph B, of Nash county, a Representative of that county in the Legislature for the last two sessions; John W., living in Edgecombe county; Harriet A., who intermarried with Hon. B. H. Bunn, member of Congress from the metropolitan district, and a citizen of Nash county; Laura Maud, the wife of John H. Arrington, Esq., of Nash county, and son of the late Hon. A. H. Arrington, former member of Congress from this State; Lizzie P. intermarried with G. C. Battle, who died in April, 1891, now living in Edgecombe county; Walter E., at present a student at Cambridge, Massachusetts, but his home is in North Carolina.

REPORT ON INTUBATION.—Drs. W. Cheatham and W. B. Pusey, Louisville, Ky., have tabulated their cases of intubation as follows:

	Cases.	Deaths.	Recoveries.	Per Ct. of Recoveries.
Cheatham	56	34	22 .	39.28
Pusey	70	37	33	47. $\frac{1}{2}$
			_	
Total	126	71	55	43.65

The report does not recite the conditions for which the operation was done, nor does it say even that they were cases where tracheotomy would formerly have been done.

#### REVIEWS AND BOOK NOTICES.

A TREATISE ON DISEASES OF THE NOSE AND THROAT, in two volumes. By Francke Huntington Bosworth, A.M., M.D., Professor of Diseases of the Throat in Bellevue Hospital Medical College, New York; Consulting Laryngologist to the Presbyterian Hospital, etc., etc., etc., Volume II; Diseases of the Throat with 3 Colored Plates and 125 Wood-Cuts. Royal Octavo. Pp. 832. Cloth. New York: William Wood & Co., 1892.

The volume before us is worthy of the same high favor which was bestowed upon the first volume when it appeared now, nearly three years ago. Professor Bosworth's apology for the long delay in the appearance of the present volume makes apparent the greater value of the work, in that it has incorporated into it the practical results of his rich experience during that time.

It is getting to be a custom with the general practitioner to consider that diseases of the nose and throat do not come within his domain, and should be relegated to the specialist in this department; so he satisfies himself with giving the patient a routine spray as "recommended by Dr. So-and-so" in the therapeutic column of his medical journal, and contents himself with the thought that he has done all he can, or has the time to do, and that it is not a matter of very great importance any way. A careful study of this work will convince these physicians of their error in this opinion, and will enable them to relieve many cases that would otherwise go on year after year in suffering and discomfort.

The present volume is divided into three sections—Diseases of the Fauces, Diseases of the Larynx and External Surgery of the Throat.

In Section I is included Syphilis, Tuberculosis and the different neuroses and tumors of the fauces. There is also included a chapter on Diphtheria, which goes fully into the history, pathology and etiology of the disease, while 27 pages are devoted to treatment alone.

The clear and comprehensive manner in which the author lays out the course of treatment in each disease is a feature of the book which will especially commend itself to the general practitioner. Section II, after starting out with a few pages devoted to the anatomy and physiology of the larynx, illustrated by several beautiful photographic reproductions of sections of the parts, devotes a chapter to Laryngoscopy. As regards the question of the duality of croup and diphtheria, the author takes the ground that the two diseases are entirely different and distinct. In the etiology of both diseases he lays special stress upon the importance of a pathological condition of the tonsils as affording a favorable nidus for the lodgement and growth of the specific germs of these diseases. He says: "I do not think that the danger to which a child with enlarged faucial glands is subjected can be over-estimated, in that these large ragged masses of lymphatic tissue lying in the fauces afford a most favorable site for the lodgement of disease germs, whether of diphtheria, croup, scarlet fever, or any of the germs which make their primary entrance into the system in the current of inspired air."

Section III is devoted to the external surgery of the throat—Pharyngotomy, Thyrotomy, Tracheotomy, Extirpation of the Larynx and Resection of the Larynx This section is liberally illustrated with diagrams and three colored plates, each with two figures showing the anatomical relations in each of these operations.

The illustrations are generally good, and the mechanical work, as might be expected, is excellent.

THE DISEASES OF THE STOMAGH. By C. A. EWALD, M.D., Extraordinary Professor of Medicine at the University of Berlin, etc. Authorized Translation from the Second German Edition, with Special Additions by the Author. By Morris Manges, A.M., M.D., with 30 Illustrations. New York: D. Appleton & Co., 1892. Royal 8vo. Pp. 497.

This work is the second volume of the Klinik der Verdauungskrankheiten, and has proven so popular that two editions were called for within nine months. The two volumes are entirely independent, but inasmuch as references are made to the first volume the translator has condensed these and included them in his footnotes.

The contents are in the form of lectures based upon stenographic reports of the author's remarks at the Feriencurse für Praktische Aerzte. The translation enjoys an advantage not possessed by the original, in that the author has read the translator's notes and made

many additions, making it to represent practically the third German edition, soon to appear.

Lectures I and II are devoted to the Methods of Examination of the Stomach; Lectures III and IV to Stenosis of the Cardiac Orifice and the Pylorus; Lecture V to Cancer; Lecture VI to Ulcer; Lectures VII and VIII to the Inflammations; Lectures IX, X and XI to the Neuroses; and Lecture XII closes the work with a discussion on The Correlation of the Diseases of the Stomach to those of Other Organs, and the Practical Value of the Modern Chemical Tests.

The illustrations are, for the most part, drawn by the author from original specimens.

Professor Ewald has drawn upon his own wide experience in the conclusions which he here presents, and in view of the large opportunities for personal observation and research with which his opinions are sustained, this work must take a very important place in the literature upon diseases of the stomach. As will be expected of a German writer, he has slighted no part of his subject, but has studied thoroughly the anatomy and nervous supply of the stomach, and its relations to other parts, both normally and pathologically, and the author has been fortunate in his translator, for Dr. Manges has rendered the original into most elegant English, while his excellent foot-notes add not a little to the value of the subject matter. While the author confines himself to the metric system in dosage and measurements, the translator has reduced these, in every instance, to grains and drachms, placed in parentheses.

The name of the publishers is a sufficient guarantee for the excellence of the mechanical work on the book.

GONORRHEA AND URETHRITIS. By G. FRANK LYDSTON, M.D. Physician's Leisure Library. Geo. S. Davis, Detroit, Mich., 1892. Price 25 cents.

Dr. Lydston has given us in this little monograph a clear and practical discussion of the etiology, pathology and treatment of this common and dangerous disease. He dwells at some length upon the causes of non-specific urethritis, deprecating the often too ready diagnosis of gonorrhea in innocent persons. His ideas of treatment are based upon wide experience, and are fully up to the latest and most improved plans. The text is richly illustrated by cuts of instruments useful in the treatment of the disease.

THE ELECTRO-THERAPEUTICS OF GYNECOLOGY. By AUGUSTIN H. GOELET, M.D., Fellow of the New York Academy of Medicine and of the New York Obstetrical Society, etc., etc. With Illustrations. Geo. S. Davis, Detroit, Mich., 1892.

This work is conveniently divided into two parts, making two numbers of the Physician's Leisure Library. Part 1 is devoted to the description of the various kinds of electricity, and enters minutely into the advantages of the different makes of apparatus Part 2 treats of the therapeutics of electricity, and we are glad to see that, while the author advocates this method in nearly all the pathological conditions of the pelvic organs, it is not recommended to the exclusion of old established methods of treatment, but he recognizes the necessity of the curette, the snare and the knife in certain cases. Dr. Goelet has been an earnest student in this department, and has offered many useful suggestions and devices.

A POCKET MEDICAL DICTIONARY, Giving the Pronunciation and Definition of about 12,000 of the Principal Words Used in Medicine and the Collateral Sciences. By George M. Gould, A.M., M.D. P. Blakiston Son & Co., Philadelphia, 1892.

The title page gives a satisfactory idea of what will be found in this convenient little book. It also contains alphabetical tables of Arteries, with their origin, branches and distribution; of the Nerves, with their functions, distribution, origin and branches; of the Muscles, with their functions, origin, insertion and innervation. Its size is  $3\frac{1}{2}$  by 3 inches, bound in red flexible cover. Price \$1.00.

ALL AROUND THE YEAR is a neat calendar for 1893, published by Messrs. Lee & Shepard, Boston.

It is printed on heavy card-boards,  $4\frac{1}{4}$  by  $5\frac{1}{2}$  inches, gilt edges, held together by rings with a silver chain for hanging. The designs are very pretty and fresh, and are by Mrs. J. Pauline Sunter. The price is 50 cents.

#### LEONARD'S PHYSICIAN'S POCKET DAY BOOK.

This popular day-book is now in its 15th year of publication. The front part of it is occupied with dose tables and other useful pocket memoranda. It is good for thirteen months, from the first day of any month that it may be begun, and accommodates daily

charges for 50 patients, besides having cash department and complete obstetric records. There are also columns for the diagnosis of disease, or for brief record of the treatment adopted following each name-space. The book is  $7\frac{1}{2}$  inches in length, and  $3\frac{1}{2}$  inches wide, bound in flexible covers, and weighs but five ounces, so that it is easily carried in the pocket.

Sent by the Illustrated Medical Journal Company, Detroit, Mich., for \$1.00.

The Medical News Visiting List, by Lea Brothers & Co., Philadelphia, is now ready.

It is arranged for thirty patients each week; also sections for clinical history, consultations, obstetric engagements, vaccinations, deaths, addresses and cash accounts, which are arranged with a thumb index for easy reference. Much useful information, and just such as a physician needs daily, is to be found in the 30 pages in the front. Included in this is a table of doses of the commoner remedies in grains or minims and the metric system; also some timely therapeutic reminders.

THE SAMUEL D. GROSS PRIZE.—The first quinquennial prize of \$1,000 under the will of the late Samuel D. Gross, M.D., will be awarded in 1893. The conditions annexed by the testator are that the prize "Shail be awarded every five years to the writer of the best original essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens." It is expressly stipulated that the successful competitor shall publish his essay in book form. and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery. The essays, which must be written in the English language, should be sent to Dr. J. Ewing Mears, 1429 Walnut St., Philadelphia, before June 1, 1893. Each essay must be distinguished by a motto, and accompanie! by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The Committee will return the unsuccessful essays if reclaimed by their respective authors, or their agents, within one year. The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

### CURRENT LITERATURE.

TWENTY-FIVE CASES OF EXTIRPATION OF THE UTERUS FOR CANCER—A CONSIDERATION OF ULTIMATE RESULTS.

Dr. Charles A. L. Reed, of Cincinnati, presented to the recent meeting of the American Association of Obstetricians and Gynecologists a report of twenty-five cases of complete vaginal extirpation of the womb for cancer with only two primary deaths-one from shock and one from iodoform poisoning. Of the twenty-five operated upon but fourteen were of more than two years standing, and hence were all that could be discussed with reference to their ultimate results. These fourteen were divisible into two classes of seven each, namely, those in which the disease had existed for more than six months before the operation, and those in which it had existed for less than six months before the operation. Of the first class, i. e., those of more than six months (an average of 10 months) previous duration, all were dead; of the second class, i e., those of less than six months (an average of 4 months) previous duration, only one has since died. One of the recoveries is of more than five years duration. The conclusion from these figures is that cases of cancer of the uterus ought to be remanded for operation as soon as diagnosed.

Dr. Reed looks upon total extirpation as the only operation to be advised or practiced in these cases, the primary mortality from which, in experinced hands, varies from five to eight per cent.

## THE HEALING OF WOUNDS BY FIRST INTENTION THROUGH THE USE OF SALICYLATE OF SODIUM.

Dr. J. T. Hall, in the *International Journal of Surgery*, after acknowledging the great decrease in mortality through the modern management of surgical cases, expresses the opinion that there is a large field for still further investigation; the idea of antiseptic sur-

gery is a correct one, but the application of so-called antiseptics is far from being based on true scientific principles.

An antiseptic that has caustic and poisonous properties, one that not only destroys bacteria, but is capable of poisoning the whole system by absorption, is not a true antiseptic according to mature's law of repair, but a so-called mechanical antiseptic. A true antiseptic, when applied to the wounded surface, should stimulate and assist repair by preventing all decomposition, and at the same time destroying all external poisons that would inoculate the wound tissues.

His first experience in the use of salicylate of sodium as a dressing for wounds was due to an emergency where no other antiseptic was at hand. It was in the case of a severe scalp wound. With some salicylic acid from his case and some soda from the patient's kitchen he extemporized a solution of salicylate of soda of about 20 per cent. strength, and, after having repaired the wound with a common sewing needle and some cotton thread, he applied to it a piece of muslin saturated with the solution, and left instructions to keep the dressing moistened with the solution until he returned the following day. On his return he came armed with the regulation apparatus, but found the wound in such excellent condition under the salicylate treatment that he would not change. The stitches were removed on the fourth day, at which time the wound had completely healed by first intention, there having been not a particle of pus, even around the stitches. It has now been twelve years since he first began using it, and he has yet to see the first case that failed to unite by first intention where it was properly used. He has come to regard it as the only true antiseptic dressing he has ever used.

# THE RELATIONS OF PELVIC DISEASE TO PSYCHICAL DISTURBANCES IN WOMAN.

At a meeting of American Association of Obstetricians and Gynecologists, at St. Louis, Mo., September 20-23, 1892. Dr. Geo. H. Rohé, of Catonsville, Md., read a paper upon "The Relations of Pelvic Disease to Psychical Disturbances in Woman."

The author pointed out the frequency with which bodily condi-

tions influenced mental states. Thus a torpid condition of the intestines, Bright's disease, putrefactive processes in the intestinal canal, etc., might give rise to melancholia and other disorders of the mental functions. It is not irrational to suppose, likewise, that diseases of the female sexual apparatus would have a not inconsiderable influence in the production or perpetuation of mental disorders. As a contribution to the knowledge of the subject the following report was submitted:

In a hospital containing 200 insane women, 35 were subjected to vaginal examination and 26 found with evidences of pelvic diseases. In 18 of these the uterine appendages were removed with the following results:

Sixteen recovered from the operation and two died. Of the 6 recovered 3 have been discharged from the hospital completely restored, both physically and mentally. In 10 considerable improvement followed the operation in both physical and mental conditions, and in 3 the operation was of too recent a date to allow any definite expression of opinion.

The mental disorder present in the 18 cases was melancholia in 6 cases, simple mania in 1, puerperal mania in 4, hysterical mania in 1, periodic mania in 2, hystero-epilepsy with mania in 1, and epilepsy with mania in 3.

The author basing his opinion, upon his experience, concludes as follows:

"The facts recorded demonstrate, first, that there is a fruitful field for gynecological work among insane women; second, that this work is as practicable, and can be pursued with as much success in an insane hospital as elsewhere; and third, that the results obtained not only encourage us to continue in the work, but require us, in the name of science and humanity, to give to an insane woman the same chance of relief from disease of the ovaries and uterus that a sane woman has."

## FIFTY-TWO CONSECUTIVE CASES IN WHICH VAGINAL HYSTERECTOMY WAS SUCCESSFULLY DONE.

On June 26th Dr. Jacobs communicated to the Gynæcological Society of Belgium the results of 52 consecutive vaginal hysteree-

tomies, in which all the patients had recovered from the operation. In 11 instances he employed ligatures; in 27 pressure forceps; in 14 cases he removed the uterus by "morcellement." The conditions for which the operations were undertaken were as follows:

Cancer of cervix, 22 cases. Of these, 8 recurred after a period of three years; 6 were lost sight of, 8 are reported cured.

Cancer of body of uterus, 3 cases Of these, 1 recurred in eighteen months, 1 was lost sight of, and 1 is reported cured.

There were 6 cases in which, after all other treatment had failed, vaginal hysterectomy was performed on account of metritis with hæmorrhages, or of painful endometritis. There were 4 cases of myoma uteri, 14 of inflammation of the appendages and pelvic tissues, 1 of malignant adenoma, 1 of puerper 1 metro-peritonitis, and 1 of suppurating hæmatocele.

[This is a fair index of the rôle which lysterectomy seems to play in the practice of certain continental gynecologists.]

Dr. Jacobs says that for more than a year he has abandoned the method of treating the broad ligaments by ligature in successive portions, and that now he uses pressure forceps only. This, he believes, will be the method of the future, because it is so easy to apply, is so quickly done, and yields such good results. His plan of operating is as follows: After the cervix has been duly drawn down, he divides the vaginal mucous membrane with the thermocautery, thus avoiding most of the hæmorrhage which the knife occasions. No sutures are applied to the mucous membrane. He then with the finger strips the cervix as high as possible, and opens the peritoneum in the anterior and posterior cul-de-sacs. According to the indications of each particular case he either turns the fundus down, or else, placing Péan's small straight forceps upon the right and left ligaments alternately, he extracts the womb, usually without hamorrhage. He uses no antiseptics, but operates with a continuous douche of sterilized water. The uterus being removed, and also the appendages as far as possible, the wound is dressed by packing it with iodoform gauze. Gauze is also packed around the forceps which lie in the vagina. The effect of thus dressing the wound is to prevent prolapse of the intestines, to excite a certain amount of adhesion between the coils of intestine presenting in the wound, and to arrest hæmorrhage. A catheter is left in the bladder. After from two to four days the forceps are

removed without disturbing the dressings. Next day these are withdrawn, and a simple iodoform gauze bandage is packed in the vagina for one day and then removed. After this the patient rises and gives herself four or five times daily vaginal injections of water. The sloughs usually fall off on the ninth or tenth day, and the cure is completed on the 15th, the vaginal opening being cicatrized. Dr. Jacobs attaches great importance to the above details, and to the mode of dressing and after-treatment.—Annales de Gynécol. et d'Obstét.—Medical Chronicle.

## THE DIGESTIVE FERMENT OF THE CARICA PAPAYA IN GASTRO-INTESTINAL DISORDERS.

Dr. Frank Woodbury suggests the name "caricinum" or "caricin" for the papain of Finckler. Its physiological actions have been established to be upon albuminoids, hydrating them and converting them ultimately into peptones, converting with great promptness starch, the ultimate product being maltose, emulsifying fats, and possessing a direct tonic action upon the stomach, stimulating the secretion of gastric juice or pepsinogen, being also distinctly antiseptic, and given with true antiseptics, like salol, will not leave the digestive action checked. Even corrosive sublimate in dilute solutions does not interfere with its digestive powers. It acts at all temperatures, best in alkaline solution, but also in fluids with an acid or neutral reaction. It has no action upon living tissnes, and is positively innocuous when swallowed in any quantity that is likely to be administered. He summarizes its use as follows: 1. In actual or relative deficiency of gastric juice or its constituents. a. Diminished secretion of gastric juice as a whole: apepsia, anæmia and deficient blood-supply, wasting disease. b. Diminished proportion of pepsin: atonic dyspepsia, atrophy of gastric tubules. c. Diminution of hydrochloric acid: achlorhydria, carcinoma. d. Relative deficiency of gastric juice: over-feeding. 2. In gastric catarrh. a. When there is tenacious mucus to be removed. b. When there is impaired digestion. 3. In excessive secretion of acid. To prevent duodenal dyspepsia. 4. In gastralgia, irritable stomach, nausea or vomiting. 5. In intestinal disorders. a. In constipation due to indigestion. b. In diarrhea, as a sedative. c. In intestinal worms [not verified by author.] 6. In infectious disorders of the intestinal tract. a. When there is abnormal fermentation. b. As a detergent in cleaning out the débris. 7 In infantile indigestion. The dose is one or two, possibly five grains, either alone or combined with bicarbonate of soda, extract of nux vomica, or both.-New York Medical Journal.

#### A CARD.

#### TO THE MEDICAL PROPESSION

After due reflection I am convinced that by my recent connection as Assistant Physician in the "Keeley Institute" at Greensboro, North Carolina, I have violated Article I, Section IV of the Code of Ethics of the "American Medical Association," adopted by the Medical Society of North Carolina. Therefore I deem it just to my professional brethren to make this announcement of my withdrawal from that "Institute," and also my regret for violation of the Code of Ethics.

Respectfully yours,

GEORGE A. RENN, M.D.

Raleigh, N. C., November 21, 1892.

Some months since some twenty-five persons in Danville, Va., were bitten by a mad skye terrier. Among the number were a whole family, consisting of father, mother and three children. Lately one child has died with what the doctor considered undoubted hydrophobia, and now the rest of the family, with many others of the victims, have gone to the Pasteur Institute for inoculation.

RAILWAY SURGERY AT THE PAN-AMERICAN MEDICAL CONGRESS.—A Section of Railway Surgery of the Pan-American Medical Congress has been organized with Dr. C. W. P. Brock, of Richmond, Va., Executive President. A full list of officers has been provided for each of the constituent countries. At the 11th Annual Meeting of the Wabash Railway Surgical Association—the first organization of the kind—Dr. C. B. Stemen, of Fort Wayne, was, by unanimous resolution, requested to prepare a paper on "Organized Railway Surgery," and read the same before the Section on Railway Surgery of the Pan-American Medical Congress At the same meeting Dr. Hal. C. Wyman, of Detroit, offered the following, which was unanimously adopted:

Resolved, That each member of this Association solicit his Congressman to interest himself in legislation in favor of the Pan-American Medical Congress.

## CURRENT NOTES.

THE KENTUCKY SCHOOL OF MEDICINE, Louisville, announces that after 1893 three courses will be required of all graduates of their school. We are pleased to note all such advances in higher standards in medical schools.

WE have received from the enterprising firm, Messrs. Renz & Henry, Louisville, Ky., a bound collection of the Addresses and Essays of Dr. G. Frank Lydston. The collection consists of fifteen essays, most of which have appeared in the medical journals. They make a most acceptable volume, and will doubtless be appreciated by those who are favored with a copy.

FOR FROST-BITE, Lassar (Medical News) suggests the following:

R.—Ol. lavandulæ Acid, carbolie	f 3 ss.
Olei olivæ	f 3 v.
Unguent. plumbi } Lanolini }	3 <b>x.—M</b> .
Ft. ung. S Apply locally.	

The Physician's Visiting List for 1893, P. Blakiston & Co., Philadelphia—Price \$1.00.—This popular visiting list is in its forty-second year of publication—It is elegantly bound in flexible leather, with flaps. It is about 4 by 6 inches in size and very light and convenient for the pocket, being printed on thin paper. It is arranged for twenty-five patients each week, and contains the usual spaces for general memoranda, addresses, wants, cash accounts, obstetrical engagements, etc. The front pages are devoted to useful information including a descriptive list of the newer remedies, dose tables in apothecary and metric measure, poisons and antidotes, list of disinfectants and therapeutic hints.

HYDBIODIC ACID IN SPECIAL PRACTICE.—Dr. J. Hobart Egbert (Amer. Jour. Med. Sciences), in a practice limited to diseases of the eyes, ears, nose and throat, has obtained good results with this remedy. Although the iodides are very diffusible and are rapidly excreted, yet they are irritant, unstable and offensive to the taste and the stomach; they frequently cause violent coryza, with soreness of throat and eyes, headache, profuse mucous discharge and

renal irritation. Their protracted use leads to anæmia, emaciation and general vital depression. He believes that these disadvantages can be reduced to the minimum by use of the syrup of hydriodic acid, which has a pleasant acidulous taste, can be advantageously combined with the vegetable tinctures and syrups, and contains a definite amount of absolute hydriodic acid; that is to say, each fluidrachm contains as much iodide as five grains of the iodide of potassium.—Medical Age.

#### READING NOTICES.

N. A. SACKETT, M.D., Ewing, Neb., says: "CELERINA I have tested in two cases of nervous headache. One case was a man of about 35 years of age, who has been subject to attacks for a number of years as often as every two weeks. I prescribed an ounce in two ounces of port wine, to take a teaspoonful four times a day. He has not had an attack since, although two months have elapsed. The other was a lady of about the same age, who has had similar attacks for the last five years. She has had no recurrence of the trouble since, and moreover she has passed two monthly periods without the usual dysmenorrhæa, with which she is afflicted at that period. I shall continue to prescribe it in cases in which it is indicated, and will report more fully in future.

WE find since establishing the fact that Elixir Three Chlorides is an exceedingly valuable Alterative and Tonic, it has led to much silent substitution; we would therefore kindly ask all physicians to specify Renz & Henry's (R. & H's) to insure a prompt and progressive result, pleasant taste, and avoid any bad features. We specially claim our combination does not exert any toxic effect upon the nerves; its centres are upon the muscles; is not astringent to cause constipation; does not derange the liver; is taken up and assimilated by the animal organism, increasing the hæmaglobin and oxygen required in the blood; assists the digestive functions, and is reliable wherever it is necessary to sustain the forces.

COCA ERYTHROXYLON.—Few drugs have as interesting and remarkable a history as Cora Erythroxylon. As a source of cocaine

alone it deserves a conspicuous niche in the herbarium temple of

The coca leaf is the great source of comfort and enjoyment to the Peruvian Indian; it is to him what betel is to the Hindu, kava to the South Sea Islander, and to bacco to the rest of mankind; but its use produces invigorating effects which are not possessed by the other stimulants. From the most ancient times the Peruvians have used this beloved leaf, and they still look upon it with a feeling of superstitious veneration. In the time of the Incas it was sacrificed to the sun, the Huillac Umu, or high priest, chewing the leaf during the ceremony; and before the arrival of the Spaniards it was used in Mexico instead of money.

Coca leaves have secured the general recognition in therapeutics which those familiar with their properties have always indicated. Physicians have become convinced by personal observation that the effects attributed to the drug are only what might naturally be expected from the action of so powerful an alkaloid as that contained in the coca leaves.

There are few cases of neurasthenia in which it will not be found useful. Taken after dinner, it serves often to facilitate digestion, and even confirmed dyspepties find their distressing symptoms relieved by it. It is of especial value in those cases where exhausting mental labor has led to morbid depression of spirits. There is no remedy like it for a fit of the "blues." It relieves the nervous irritability that follows indulgence in excesses of any kind, restoring the capacity for work and giving renewed energy. It acts as a sort of antidote to the effect of opium, alcohol, tobacco or coffee, and judicicusly used may even enable one to overcome the morbid craving for any of these stimulants when they have been used to excess. As a remedy for nausea and vomiting from reflex causes, particularly the vomiting of pregnancy, the cordial proves very efficacious. It should be taken a few minutes before eating, and the dose repeated in an hour or two afterwards. Gastralgia is frequently relieved by this remedy, and nervous headaches often disappear under its use. It is of service also in cases of asthma, as an aphrodisiae, emmenagogue, antiperiodic, in drunkenness, in nervous exhaustion, and internally and locally for hæmorrhoids. As a restorative of the circulation in cases of enfeebled heart it is invaluable. We believe Messrs. Parke, Davis & Co. were the first to introduce to physicians of this country this interesting drug, and have made a thorough study of its eligible and therapeutically efficient administration.

## NORTH CAROLINA

## MEDICAL JOURNAL.

EDITORS:

THOMAS F. WOOD, M.D. GEO. GILLETT THOMAS, M.D.

Volumes XXIX and XXX.



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As a further precaution, it is advisible that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to:

Mr. FELLOW, 48 Vesey Street, New York.

"Indigestion hath the power
To mar the soul's serenest hour."

-MARK TWAIN,

# "There's many a true word spoken in jest."

Mental equanimity and serenity of soul are hardly consonant with pyrosis and flatulence. Most cases of dyspepsia are due to a primary digestive deficiency. Lactopeptine overcomes this deficiency by furnishing all the elements which have any digestive action on the various food stuffs.

If there are any other explanations of its beneficial action, we leave them for you, Doctor, to discover. We are not aware of any, but we know that Lactopeptine does the work.

THE NEW YORK PHARMACAL ASSOCIATION, YONKERS, N. Y.











